Training Plan
Helps B&O Get Engineers—p. 30

Today's Hottest Operating Problem . . . p. 50

RAILWAY AGE

JUNE 24, 1957 • THE INDUSTRY'S NEWSWEEKLY

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"The Diesel locomotive has been an outstanding contributor to the healthy progress of American railroading in the past 20 years. The capabilities of this power are not, however, being fully realized by the railroad industry generally, because complementary improvements to line and yard facilities, and modernization of operating procedures have not kept pace with the acquisition of Diesel locomotives.

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In addition to this enlightened program of improvement, and to handle the steady increase of traffic, the Great Northern added 20 units to its General Motors fleet in 1956, with an additional 34 units scheduled for 1957.

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Wheel loads of five tons from lift trucks are common, but easily supported by Armco Freight Car Floors. The reason: Two steel ribs support each wood plank.

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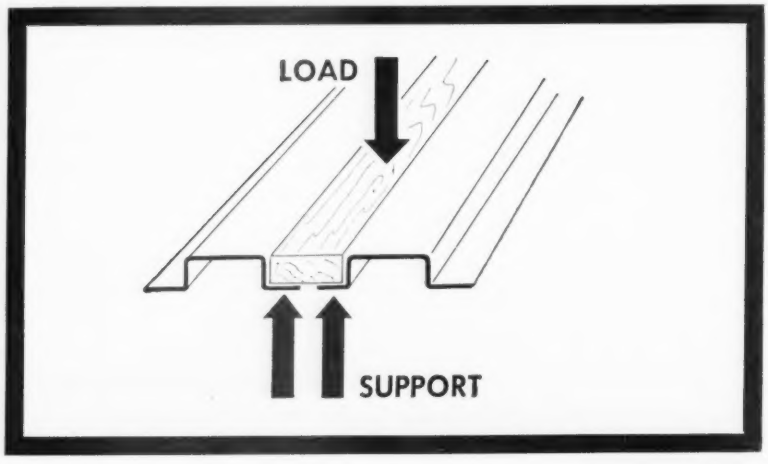
Further information on Armco Freight Car Flooring is readily available. Just contact the Armco Sales Office near you, or write us at the address below.



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A. **BRIDGE BOLT**—Has square head for easy wrench grip, and integrally forged washer. Saves time, as it is easier to install than standard machine bolt and cast-iron washer.

B. **TIMBER BOLT**—The sharp, diamond-shaped lugs under the head dig into the wood to prevent bolt from turning. The rounded head lies close to the work, promoting safety by offering minimum obstruction. Spiral ribs under head retard seepage. No washer required.

C. **TIE BOLT**—Specially designed to anchor wood ties. Bolt is used in inverted position, and is run through the tie, with nut applied from top. Bolt has hook head for grasping flange of structural steel.

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RAILWAY AGE The Industry's Newsweekly

June 24, 1957
Vol. 142, No. 25

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Week at a Glance

Chicago buzzes with terminal talk ..... p. 9

The city's long-standing "dream" of a consolidated South Side railway passenger terminal moved a little nearer to realization last week when the Illinois governor signed two bills permitting creation of a tax-exempt authority to effect the consolidation. The city is vigorously pushing the project.

Public phase of passenger probe opens p.10

U.S. railroads have spent over $1.4 billion on new passenger rolling stock in the past quarter century, the ICC was told last week, despite the fact that in 21 of the 25 years passenger-train service showed a loss.

How to increase usable car days p.24

Really surprising savings can be effected by reducing the time that freight cars are out of use because of routine bad order conditions. Here's how the Central of Georgia has gone about achieving that desirable goal.

New role framed for accountants p.27

A vital new role for the chief railroad accounting officer, as a shaper of policy and a sharer in broadened responsibilities, was projected at the annual meeting of the AAR's Accounting Division in Dallas.

Mining road is a proving ground p.28

The Erie Mining Company's 73-mile plant-to-harbor railroad in northern Minnesota will be the site of extensive performance trials on new air-brake development, beginning about July 15. The trains will be pulled by diesels which spent the winter in a tunnel, safe from the effects of dampness.

Railroaders from young engineers p.30

For seven years the Baltimore & Ohio has conducted a training program for engineering graduates. At least one measure of the value of the course is indicated by the large number of varying railroad positions occupied by its graduates.

6,477 Wabash Cars Upgraded in 21 Months With Economical ADM Freight Liner 810

Success Story No. 2: In 1955 the Wabash Railroad began upgrading boxcars with Archer-Daniels-Midland Freight Liner 810. They have upgraded 6,477 cars with Freight Liner in 21 months and report that their experience has been "most satisfactory".

Today 25 major railroads use this economical, consistently satisfactory plastic-and-fiberglass method to upgrade boxcars. Like the Wabash, these railroads find that Freight Liner can be used for patching, relining, and even for resurfacing stained flooring. It is especially good when cars must meet rigid sanitary regulations.

Versatile Freight Liner is easy to apply. A crew can be trained to use it in minutes. The Freight Liner plastic can be sprayed from a disposable can, facilitating easy clean-up. Most railroads operate the spray guns with air pressure from the readily available rip track or cleaning track air lines.

Let ADM technical service experts show you why the Wabash and other major railroads now use and recommend Freight Liner. Call or write, today, for a demonstration (without obligation) on your own siding.

Bad breaks like this one in the end of a boxcar are quickly and economically repaired with Freight Liner 810. Any crew can be trained to do the job with brief instruction.

First step in Freight Liner method of upgrading is to spray plastic around area to be patched, using air pressure from rip track air lines.

Here's the finished job after fiberglass cloth is put in place and a second coat of plastic is sprayed over the patch. Plastic dries in minutes, meets rigid sanitary requirements.

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Current Statistics

Operating revenues, four months	
1957	$3,459,398,550
1956	3,411,490,931
Operating expenses, four months	
1957	$2,711,046,036
1956	2,650,434,696
Taxes, four months	
1957	$363,854,120
1956	361,667,867
Net railway operating income, four months	
1957	$295,474,543
1956	313,697,804
Net income estimated, four months	
1957	$221,000,000
1956	237,000,000
Average price 20 railroad stocks	
June 18, 1957	91.33
June 19, 1956	101.91
Carloadings revenue freight	
Twenty-three weeks, 1957	15,616,272
Twenty-three weeks, 1956	16,572,747
Average daily freight car surplus	
Wk. ended June 15, 1957	26,230
Wk. ended June 16, 1956	8,958
Average daily freight car shortage	
Wk. ended June 15, 1957	1,455
Wk. ended June 16, 1956	6,577
Freight cars on order	
June 1, 1957	97,006
June 1, 1956	133,072
Freight cars delivered	
Five months, 1957	43,034
Five months, 1956	27,639
Average number railroad employees	
Mid-May 1957	1,004,427
Mid-May 1956	1,063,387

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Week at a Glance CONTINUED

Today's hottest operating problem p.50

The hot box today probably presents the greatest single deterrent to orderly and dependable freight train operation. What's being done, and what can be done, about this impediment to acceptable performance, will be discussed at this week's Chicago meeting of the AAR's Mechanical Division.

SHORT AND SIGNIFICANT

New ACL president . . .

is W. Thomas Rice. On August 1 he will succeed C. McD. Davis, leaving his post as president of the RF&P at the age of 45.

End of AAR Traffic Department . . .

will come with retirement of Vice-President W. J. Kelly on June 30. Association traffic activities will be transferred to a new Traffic Statistics Section in the Bureau of Railway Economics. M. F. Dolan, who has been secretary of the department, will head the section as manager.

D&RGW will seek modification . . .

of the ICC's 1923 "Central Pacific Order" which Rio Grande says "required the Southern Pacific to solicit freight traffic preferentially for the Union Pacific" on business moving East or West via Ogden, Utah. Citing D&RGW's improved competitive position, road officials called the 34-year old requirement "unlawful discrimination . . . [resulting] in undue prejudice against the Rio Grande."

Plans for an 'airail' car . . .

that would be gasoline-powered, driven by a propeller in the rear and stabilized by fins, have been announced by an aircraft company. The car would hang beneath a "safety rail" and could be operated in either single or multiple units.

Extensive real estate surveys . . .

have been started by the Chicago & North Western to determine the best and most efficient use of the road's many properties, some of them held for over 100 years. The surveys will begin with a "pilot" project over 200 miles of properties, including the Chicago and Milwaukee metropolitan districts.

- **Suez crisis has pointed up petroleum-availability problem and has even caused price rises in U. S.**

- **Increased cost of diesel fuel — and possibility of short supply — makes even more important railroads' search for ways to cut consumption.**

- **ALCO locomotives offer to railroads significant fuel savings now.**

YOU GET THE MOST POWER PER GALLON FROM ALCO LOCOMOTIVES

Last year U. S. railroads burned well over 3½-billion gallons of diesel fuel and paid $350 million in diesel fuel bills. In figures of that size any saving is significant. ALCO locomotives provide that saving because they use diesel fuel more efficiently. ALCO's modern turbocharged four-cycle diesel engine and advanced electric transmission get the most ton-miles per gallon of fuel.

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RAILWAY AGE
The Industry's Newsweekly

Chicago Buzzes With Terminal Talk

City backs tax-exempt authority that would involve consolidation of four South Side passenger stations used by 16 railroads; two enabling bills have been signed by Illinois Governor Stratton.

Chicago may yet realize its long-standing "dream" of a consolidated South Side railway passenger terminal.

The reason: The city of Chicago has come to the railroads with a proposal recognizing a certain public responsibility in financing such a multi-million dollar venture. This factor has brought Chicago's South Side railroads face-to-face with the most promising terminal proposal in recent years.

Two acts of the Illinois legislature —passed almost without opposition and signed last week by Governor William G. Stratton—may lead to a solution of the city's long-standing railway passenger terminal problems.

The two bills will permit creation of an authority to effect consolidation of South Side stations and exempt the authority from local taxation.

Four existing stations would be affected by consolidation planning—Dearborn Street, La Salle Street, Grand Central and Illinois Central 12th Street. Sixteen passenger-carrying railroads would be involved, as owners or tenants.

Under present plans, terminal financing, at least in part, would be worked out through a revenue bond issue handled by the terminal authority. If the project should require more money than could be raised on a practical, attractive bond issue—as some observers think likely —then other sources would have to be tapped. Federal and state funds or general obligation bonds have been mentioned as "other sources."

Railroad contributions to pay off the terminal debt would come as terminal rentals—figured, presumably, on a basis of what it costs the railroads to operate in their present locations. In discussing these rentals and other financial angles of the proposals, railroads have employed three economic "facts-of-life."

1: Costs of operating out of a consolidated terminal must not exceed costs of present operation; 2: Railroad property which would be made useless by a union terminal project must be disposed of in a way which will satisfy bond-holders and/or others with equity in the property; and 3: Any consolidation agreement must include provision that if passenger traffic continues to decline, costs per unit must not increase by reason of that decline.

The railroads' present receptive attitude towards proposals involving authority financing is a decided switch from a stand taken just eight years ago. Late in 1949, a report on behalf of the Dearborn-La Salle-Grand Central group rapped the authority theory as a "step toward socializing the railroads, which is to be deplored."

Should terminal plans be pursued, another angle may develop which qualifies as a problem of finance: With 16 railroads operating out of a tax-exempt station, what about the city's other tax-paying terminals? One opinion is that the other stations may also have an opportunity to come under the authority.

If financing is considered the major hurdle, however, it wins the honor by only a slim edge over another tough problem—choice of a site satisfactory to all parties involved. Two engineering firms, De Leuw, Cather & Co. and Sanderson & Porter, have begun a survey covering approximately 20 locations. Most of the study is said to involve a South Side area bounded by Lake Michigan on the east, the Chicago river on the west, the lower part of the Loop on the north and the 25th Street district on the south. A report on the survey is not expected before May 1958.

The city, with Mayor Richard J. Daley leading the parade, is vigor-

(Continued on next page)

REA Gets Another Rate Increase

A rate increase of about 11% will become effective sometime next month on LCL express shipments between points in Eastern territory.

It has been authorized by the Interstate Commerce Commission which also gave the Railway Express Agency relief from tariff-filing rules to the extent necessary to permit publishing the higher charges on 15-day notice. The authorized adjustment will increase the involved eastern-territory rates by 15% above those in effect December 26, 1956, i.e., the 4% increase which became effective December 27, 1956, must be eliminated before the 15% is added.

That 4% increase was a nationwide adjustment. It will, of course, remain in effect in other territories. These present rates, uniform in all areas, were found by the commission to penalize eastern railroads.

Under the REA proposal, the new eastern increases will not apply to rates on milk and cream, newspapers, and human remains, nor on charges for c.o.d. refrigeration and accessorial services.

The commission's order exempts also fresh fish and seafood, flowers and watercress.

Fourth-section relief granted in connection with the authorization was more restrictive than REA sought. That phase of the decision drew a dissenting-in-part expression from Commissioner Arpaia, with whom Commissioner Walrath agreed.

Another dissenting-in-part expression came from Commissioner Freas who said he did not believe a case had been made justifying the special treatment of fresh fish and seafoods, and flowers. Commissioners Winchell and Murphy agreed with him.

(Continued from preceding page)
ously pushing the project as a major factor in a wholesale revitalization of the South Side. And the railroads, working through a five-man, top-level committee, are giving careful consideration to all ideas advanced by the city. More than that, the railroads are giving 100% cooperation to thorough studies of the complex situation and have gone along on a quarter-million dollar survey, 50-50 with the city.

The railroad committee, headed by Lewis A. Evans, president and general manager of the Chicago & Western Indiana and the Belt of Chicago, includes G. Murray Campbell, vice-president and excutive representative, Baltimore & Ohio; Dwight A. Fawcett, resident vice-president, New York Central; D. B. Jenks, president, Chicago, Rock Island & Pacific; and Wayne A. Johnston, president, Illinois Central.

Public Phase of Passenger Probe Opens

Over $1.4 billion have been spent by U. S. railroads for new passenger equipment in past quarter century, ICC is told, despite fact that passenger-train service showed a loss in 21 of the 25 years.

The nation's railroads in the past quarter-century have spent on new passenger rolling stock more than $1.4 billion—two-thirds of which has been expended in the past ten years. The outlays were made despite the fact that railroad passenger-train service as a whole has shown a loss in 21 of the past 25 years.

That's what the Interstate Commerce Commission was told last week as it got under way with the public-hearing phase of its passenger-deficit investigation. The statements were in testimony offered by William F. Betts, assistant to the vice-president, Bureau of Railway Economics, Association of American Railroads.

Another witness was Walter R. McDonald, member of the Georgia Public Service Commission and chairman, since its inception in 1949, of the Passenger Deficit Committee of the National Association of Railroad and Utilities Commissioners. The hearing was before Examiner George B. Vandiver.

It dealt with four of the 15 matters which have been designated by the commission as subjects for the inquiry (Railway Age, Apr. 15, p. 11). The four are: what railroad management has done and plans to do to improve equipment and services; effect of suburban development and the private automobile on the passenger deficit; studies of political and economic forces exerted upon railroads to maintain commutation service and of the corresponding obligation of the public with respect to such service; experience in discontinuing trains and abandoning lines, stations and agencies.

Addressing himself to the first subject, Mr. Betts said that since 1934 the carriers have spent $782 million on passenger cars and $600 million on passenger-type locomotive units. During the period, 6,636 new passenger cars and 3,021 passenger locomotives, including 2,446 diesel units, were placed in service, Mr. Betts also reported.

Since the end of World War II, he added, 6,168 passenger-train cars have been acquired, at a total cost of $640 million, to reequip principal trains with modern cars to compete more effectively for post-war traffic. These figures reflect higher unit costs incurred in recent years.

In that connection, Mr. Betts noted that the unit cost of passenger coaches rose from less than $20,000 in 1934 to more than $170,000 in 1954, while average costs of dining cars increased between 1934 and 1956 from about $30,000 to "nearly $300,000." The witness also pointed out that large sums have been spent to rebuild and modernize much of the older passenger equipment.

Chairman McDonald of NARUC's Passenger Deficit Committee offered for the record the reports made by that committee over the eight years of its existence. He also had figures showing that state commissions, from 1951 through 1956, authorized railroads to discontinue 1,274 passenger trains.

Mr. McDonald called this record "conclusive evidence that the railroads on an overall basis have not experienced unreasonable difficulty in obtaining from state commissions authority to discontinue operation of deficit passenger trains." As to what railroads have done to improve equipment, he had this to say:

"The Passenger Deficit Committee has always urged the railroads to improve their remaining services and

PRR Officer 'Spiked' for Fostering Community Relations

Morton S. Smith (center), vice-president and regional manager at Pittsburgh for the Pennsylvania, receives a golden spike for past services as chairman of the Pittsburgh Railroads Community Relations Committee. Spike is being presented by Fred W. Okie (right), president of the Bessemer & Lake Erie and present chairman of the committee, as John W. Barriger, Pittsburgh & Lake Erie president, looks on.

equipment and has emphasized to them that considerable improvement would be necessary to attract new passengers to the rails or even to keep for very long the passengers they already had. During the past eight years the committee has received from the railroads much statistical information showing new equipment purchased and placed into service but, unfortunately, most of the passenger trains of the country continue to be operated with equipment which, while probably adequate, will never serve to attract passengers from other modes of transportation."

D&H To Install Automatic Dial Telephone System

The Delaware & Hudson is to install a fully automatic dial telephone system to serve the entire railroad, including 420 telephones in 73 locations from Rouses Point on the Canadian border through Albany, N. Y., to Wilkes-Barre, Pa.

Ten small automatic switching centers will be set up at key points: Plattsburgh, N. Y., Whitehall, Mechanicville, Albany, Saratoga, Colonie, Oneonta, Binghamton, Carbondale, Pa., and Wilkes-Barre. The New York Telephone Company, and 10 independent telephone companies, are cooperating in the project.

C&NW Stockholders to Vote on L&M Oct. 22

Chicago & North Western stockholders will meet October 22 in Chicago to vote on the road's proposed merger with the Litchfield & Madison.

Ben W. Heineman, C&NW chairman, said his road has acquired 97.4% of the L&M's 180,000 shares of common stock, at $44.44 per share. Decision to purchase the L&M was announced at C&NW's annual meeting in May (Railway Age, May 27, p. 15)

The transaction, also subject to Interstate Commerce Commission approval, would give C&NW a direct entry to East St. Louis, Ill.

UP to Boost CTC Mileage To 2,030 in New Project

The Union Pacific has announced a 228.7-mile centralized traffic control project which will close the last CTC gap in 756 miles of main line between Granger, Wyo., and Hinkle, Ore. The project, scheduled for completion early next year, will involve trackage between Glenns Ferry, Idaho, and Huntington, Ore.—190.1 miles of single main track, including the main line to Boise; and 19.3 miles of double main track.

A control panel at Nampa, Idaho, will serve the new installation, controlling train movements as far as 94 miles east and 82 miles west of Nampa. Completion of the project will give UP 2,030 miles of CTC in operation.

As part of the program, four passing tracks will be abandoned and 18 others will be extended to a minimum length of 9,000 feet. Improvements to the double-track main line will permit train operation in either direction on either track.

New Pittsburgh Station Is Opened by B&O

The Baltimore & Ohio opened on June 15 this new Pittsburgh terminal passenger station for local trains only. The new facility replaced the railroad's 68-year-old Smithfield Street Station—one of the city's landmarks which must be removed to make way for the Penn-Lincoln Parkway improvement. All B&O through trains continue to operate through the Pittsburgh & Lake Erie station across the Monongahela river from this station.

Consolidations Called Best RR Bet

Within 15 or 20 years, wholesale consolidation probably will reduce the nation's railroads to around 25 large systems, President Robert S. Macfarlane of the Northern Pacific believes.

Mr. Macfarlane told the Transportation Association of America's Midwest Institute of Transportation in St. Paul last week that with the savings of dieselization now almost all realized, "consolidation of railroads is the most promising avenue to improve operations and provide cheaper transportation with better service."

Speaking also at the institute, A. C. Ingersoll, Jr., president of Federal Barge Lines, proposed a reworded version of the "Three Shall-Nots" which would allow what he considers the true low-cost carrier to set a rate in any case where rates were disputed between different modes of transport. Higher-cost carriers then would set rates reflecting the difference in value of the services they provide.

J. L. Burke, president of Service Pipe Line Company, urged a greater degree of cooperation between forms of transportation because "today, there is no group representing a single type of transportation that is strong enough politically and economically to gain federal legislation opposed by other transportation groups."

"No one can predict that consolidation will result in reduced freight rates on an overall basis," Mr. Macfarlane said. "However, by reducing expenses, we can at least prevent future rate increases that would [otherwise] be necessary to meet constantly increasing costs of labor and materials."

Mr. Macfarlane's Northern Pacific is involved in a proposed merger with the Great Northern, the Burlington, and the Spokane, Portland & Seattle, studies of which are expected to be ready in October.

"Consolidation offers many possibilities of eliminating wasteful and non-

productive facilities and practices at common points," he said. It "offers railroads an opportunity to eliminate duplicate lines without depriving any area of railroad transportation. The impact on labor is going to be very minor, indeed, since consolidation of major systems must necessarily take a period of years before there can be complete integration of operations. Any reduction in personnel would occur only over a long period and would generally be taken up by retirements and normal attrition."

Contending that continued arguing about what powers the ICC should have over competitive media is getting the transportation industry nowhere, Mr. Ingersoll proposed this version of the "Three Shall-Nots:"

"In the exercise of its power to prescribe just and reasonable rates, the Commission should, after thorough investigation, let the low-cost carrier set the rate in any disputed case, without considering the effect of that rate on the traffic of any other carrier, or the relation of that rate to the rate of any other carrier, or whether that rate is lower than necessary to meet the competition of any other carrier."

He would, he said, define the "low-cost" carrier as "the most efficient carrier—the carrier who does the job with the least overall cost to all concerned, and with the greatest advantage to the shipper, all things considered."

Flash Floods Hit Midwestern Roads

Heavy rains and flash floods continued to plague midwestern railroads on two major fronts last week—the St. Louis area and parts of western Minnesota and eastern South Dakota.

The torrential rains and floods came in the wake of widespread flood damage in April and May throughout the Southwest (Railway Age, June 17, p. 58).

Missouri Pacific and St. Louis-San Francisco were hard hit south of St. Louis. The Great Northern, the Milwaukee and the Minneapolis & St. Louis were handicapped by flooding farther north.

The MP St. Louis-Kansas City line went out of service at midnight on June 14 and trains were rerouted over the Wabash. Mopac's line from St. Louis to Southwest points was even harder hit, with 47 washouts reported in a seven-mile stretch south of St. Louis. Traffic was detoured over the Illinois Division to Thebes, Ill., then across the Mississippi River to Poplar Bluff, Mo.

River Division traffic on the Frisco was disrupted at about the same time when a bridge went out of service at Alpha, Mo. Another washout between St. Louis and St. Clair, Mo., forced the road to bridge a gap with bus transportation. High water was also reported near Pacific, Mo.

High waters hit the Milwaukee at two main points—Sioux Falls, S.D., yards and near Appleton, Minn. At the height of the trouble, the road detoured its east-bound "Olympian Hiawatha" east of Aberdeen, S.D., and rerouted the west-bound streamliner from Minneapolis to Terry, Mont., over the Northern Pacific on one day and from Minneapolis to Appleton over the Great Northern on the next. Milwaukee officers reported one derailment, involving a local passenger-mail-express train which hit a stretch of soft track near Appleton.

Great Northern reported track damage at several points and repairs were expected to take approximately one week.

The Minneapolis & St. Louis reported two washouts, one which the road expected would close the line at Clarkfield, Minn., only shortly, and another at Roland, Iowa, which would require two days' work before the line could be put back into service.

Alco Shops Inspected by Spanish Diesel Experts

Two railroad officers closely associated with application of diesel-electric motive power in Spain recently concluded a 2½-month visit in the U.S. with a tour of locomotive production operations in the Schenectady, N.Y., plant of Alco Products. Marcial Bustinduy (left), assistant superintendent of diesel motive power for the Spanish National Railways, and Jose M. Fortuny (center), diesel-shop superintendent for the railways at Sevilla, examine a locomotive control at Alco's diesel school. At right is O. G. Dellacononica, senior project engineer for Alco.

GM&O Fined $8,000

The Interstate Commerce Commission has been advised that the Gulf, Mobile & Ohio was fined $8,000 and costs in the federal district court at Jackson, Tenn., upon its plea of *nolo contendere* to an information in eight counts charging violations of the Elkins Act.

This was reported by the commission in a notice which also said the charges involved allegations that the road had granted concessions in connection with shipments of agricultural limestone, and had failed to observe strictly its published tariffs. The case was investigated by the commission's Bureau of Inquiry and Compliance.

MARKET OUTLOOK THIS WEEK

Week's Loadings 6.9% Under Last Year's

Loadings of revenue freight in the week ended June 15 totaled 746,125 cars, the Association of American Railroads announced on June 20. This was an increase of 12,648 cars, or 1.7%, compared with the previous week; a decrease of 55,303 cars, or 6.9%, compared with the corresponding week last year; and a decrease of 33,832 cars, or 4.3%, compared with the equivalent 1955 week.

Loadings of revenue freight for the week ended June 8 totaled 733,477 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CAR LOADINGS
For the week ended Saturday, June 8

District	1957	1956	1955
Eastern	114,069	123,177	125,895
Allegheny	146,399	152,075	151,463
Pocahontas	65,140	67,130	60,931
Southern	117,687	128,505	123,074
Northwestern	122,365	126,043	130,192
Central Western	116,804	128,065	129,722
Southwestern	51,013	62,080	60,661
Total Western Districts	290,182	316,188	320,575
Total All Roads	733,477	787,075	781,938
Commodities:			
Grain and grain products	47,184	56,686	52,040
Livestock	5,113	6,278	6,347
Coal	138,842	131,641	132,097
Coke	10,621	13,258	11,669
Forest Products	41,332	48,743	46,310
Ore	88,583	88,244	83,900
Merchandise l.c.l.	53,121	59,622	67,323
Miscellaneous	348,681	382,603	382,252
June 8	733,477	787,075	781,938
June 1	671,785	719,209	709,351
May 25	722,903	788,254	785,589
May 18	722,521	778,997	769,879
May 11	723,392	777,606	752,645
Cumulative total, 23 weeks	15,616,272	16,572,747	15,609,869

New Equipment

LOCOMOTIVES

► *St. Louis Southwestern.*—Ordered six 1,750-hp general purpose diesel units, Electro-Motive; cost $1,140,000; delivery scheduled for next October.

FREIGHT-TRAIN CARS

► *May Orders and Deliveries Up.*—New freight cars ordered in May totaled 3,423, compared with 2,403 in May 1956, ARCI and AAR report; new freight cars delivered last month totaled 8,824, compared with 8,961 in April and 6,667 in May 1956; backlog of cars on order June 1 was 97,006, compared with 105,190 on May 1 and 133,072 on June 1, 1956.

Type	Ordered May '57	Delivered May '57	On Order June 1, '57
Box—Plain	1,002	2,545	28,302
Box—Auto	0	0	500
Flat	78	42	3,241
Gondola	529	530	12,729
Hopper	1,065	3,072	34,195
Covered Hopper	155	1,120	7,236
Refrigerator	110	585	2,817
Tank	452	459	6,746
Caboose	30	11	153
Other	2	460	1,087
TOTAL	3,423	8,824	97,006
Car Builders	2,001	5,124	45,065
Company Shops	1,422	3,700	51,941

► *Baltimore & Ohio.*—Ordered 225 70-ton gondola cars from its DuBois, Pa., shops; cars are coming from assembly line at daily rate of five units, with completion expected in mid-August.

► *Great Northern.*—Ordered from its St. Cloud, Minn., shops 1,000 50-ton box cars costing $8,800,000, and 50 50-ton flat cars costing $600,000; delivery of box cars to be completed by end of September 1958, and of flat cars by May 30, 1958.

New Facilities

► *Chesapeake & Ohio.*—Will build new $7,000,000 coal dock at Toledo, Ohio; the facility, for transferring coal from railroad cars to ships, will have hourly capacity of 6,000 net tons, said to be three times the volumetric capacity of any traveling ship loader ever built; completion scheduled for June 1958.

► *Illinois Terminal.*—Diesel shop extension under way by company forces at Federal (suburb of Alton, Ill.), will cost about $200,000; project scheduled for completion about December 1, 1957.

► *Lake Superior & Ishpeming*—Construction of $621,000, 16-mile branch extension at Cusino, Mich., is underway, with completion (*Continued on next page*)

MARKET OUTLOOK (continued)

scheduled for November 1; extension was planned to reach additional timber territory.

► *McCloud River.*—Completed construction of combination diesel-car repair shop, at cost of approximately $155,000; shop building, 120 ft by 180 ft, is equipped with 10-ton traveling overhead crane.

► *New York Central.*—Ordered equipment from General Railway Signal Company for installation of yard automation at new 72-track freight car classification yard in Elkhart, Ind.; installation includes programmed automatic switching arranged to store routings for entire train, automatic radar and analog computer type retarder control, and a remotely controlled car accelerator, and cab signals in three yard locomotives; non-interlocked switch machines on receiving yard switches will be controlled—as will yard track indicators—from hump office; impulse track circuits will be used for maximum shunting sensitivity.

► *Spokane, Portland & Seattle.*—Plans to expand dock and unloading facilities at grain elevator operated by Archer-Daniels-Midland on Columbia river have been announced; 587-ft dock will be extended by 375 ft and capacity of airveyor unloading equipment will be doubled at cost between $350,000 and $400,000; elevator is leased by A-D-M from the SP&S; new facilities are to be in operation by September.

► *Western Pacific.*—Will replace 100-lb rail with 119-lb rail in 78-ft rail lengths over 7.10 miles of line between Sage and Silverzone, Nev.; work also will include 6-in. ballast raise; project scheduled for September through December, at estimated cost of $368,000; work to be done by company forces.

Purchases & Inventories

► *Three Months' Purchases Up 7.4%.*—Purchases by domestic railroads of all types of materials in this year's first three months were $44,167,000, or 7.4%, higher than in 1956 first quarter; purchase and inventory estimates in following tables were prepared by Railway Age.

PURCHASES*	March 1957	Three Months 1957	Three Months 1956
	(000)	(000)	(000)
Equipment**	$ 44,372	$169,008	$110,503
Rail	11,384	30,301	27,881
Crossties	7,459	20,562	16,967
Other Material	109,167	303,989	318,029
Total from Manufacturers	$172,382	$523,860	$473,380
Fuel	38,966	117,188	123,501
Grand Total	$211,348	$641,048	$596,881

* Subject to revision.
** Estimated value of orders.

INVENTORIES*†	March 1, 1957	March 1, 1956
	(000)	(000)
Rail	$ 56,608	$ 55,288
Crossties	98,453	91,345
Other Material	549,775	512,368
Scrap	22,818	19,146
Fuel	35,572	30,660
Total	$763,226	$708,807

* Subject to revision
† All total inventory figures taken from ICC statement M-125 for month indicated.

Craddock Heads AARS

J. A. Craddock (right), superintendent, Lackawanna, accepts gavel from H. H. Clark, superintendent transportation, Erie, following Mr. Craddock's election as president of the American Association of Railroad Superintendents for 1957. The organization met in Chicago early this month (Railway Age, June 10, p. 9), and will hold its regular post-convention meeting in Seattle August 1-2.

April Accidents

The ICC has made public its Bureau of Transport Economics and Statistics' preliminary summary of railroad accidents for April and this year's first four months. The compilation, subject to revision, follows.

Item	Month of April 1957	4 months ended with April 1957
Number of train accidents*	349	1,397
Number of accidents resulting in casualties	30	142
Number of casualties in train, train-service and nontrain accidents:		
Trespassers:		
Killed	53	207
Injured	65	170
Passengers on trains:		
(a) In train accidents*		
Killed	..	..
Injured	43	88
(b) In train-service accidents		
Killed	..	4
Injured	116	470
Employees on duty:		
Killed	15	58
Injured	876	4,152
All other nontrespassers:**		
Killed	122	464
Injured	331	1,686
Total—All classes of persons:		
Killed	190	733
Injured	1,431	6,566

*Train accidents (mostly collisions and derailments) are distinguished from train-service accidents by the fact that the former caused damage of more than $750 to railroad property in 1957. Only a minor part of the total accidents result in casualties to persons, as noted above.

**Casualties to "Other nontrespassers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties *for all classes of persons, including both trespassers and nontrespassers,* were as follows:

Persons:		
Killed	112	461
Injured	292	1,429

EIGHT ROADS WIN NSC SAFETY AWARDS

Six Class 1 railroads and two switching and terminal roads have been named winners of the Railroad Employees' National Safety Award of the National Safety Council.

The winners and their rates:

Fifty million man-hours or more: Union Pacific, 2.68; average for all roads in group, 7.33—twenty to 50 million man-hours: Atlantic Coast Line, 4.22; average for all roads in group, 7.48—eight to 20 million man-hours: Duluth, Missabe & Iron Range, 1.78; average for all roads in group, 8.72—three to eight million man-hours: Monon, 4.95; group average, 9.37—one to three million man-hours: Charleston & Western Carolina, 3.85; group average, 10.83—less than one million man-hours: Texas Mexican, 1.32; group average, 10.64.

Switching and terminal lines winners were: over one and one-half million man-hours: Chicago & Western Indiana; less than 1½ million man-hours: River Terminal Railway (Cleveland).

Among divisions of the Pullman Company, operations in Mexico had the top record; among Pullman shops, Wilmington, Del., posted the best mark.

According to the National Safety Council, the overall Class 1 rate of employees killed or injured per million man-hours worked was 8.09.

'Middle Management' Men To Attend UCLA Seminar

The Santa Fe will send 33 "middle management" men to a six-weeks Institute of Business Economics seminar this summer at the University of California in Los Angeles. The course, begun in 1952 as a joint venture of the railroad and the UCLA school of commerce, will feature discussions on economic, social and political factors in the free enterprise system. Santa Fe men also will receive training in public speaking and conference leadership.

Okonite Dedicates New 10-Acre Plant

The Okonite Company on June 18 dedicated this new insulated wire and cable plant at North Brunswick, N. J., and simultaneously closed its plant at Wilkes-Barre, Pa. The main office and plant at Passaic, N. J., as well as a plant at Paterson, N. J., are being continued. Manufacturing space in the new plant covers 420,000 sq ft, all on one floor. The plant, with a 9,600 sq ft office building, was bought by Okonite early in 1956 for $4,205,000, and a 16,000 sq ft addition was made to the manufacturing building. Machinery was moved from the Wilkes-Barre plant to North Brunswick, and about $2,000,000 was spent for new machinery.

Financial

Applications

CHICAGO & NORTH WESTERN.—To assume liability for $2,250,000 of equipment trust certificates to finance in part the acquisition of 20 1,750-hp road switching locomotives from Electro-Motive Division, General Motors Corporation. Estimated unit cost of the locomotives is $159,860, estimated total cost being about $3,200,000. The certificates would mature in 15 annual installments, beginning June 15, 1958. They would be sold by competitive bids which would fix the interest rate.

RAILWAY EXPRESS AGENCY.—To issue $9,000,000 of short-term promissory notes in connection with financing the purchase of highway equipment at an estimated total cost of $9,574,000. Included would be 1,645 trucks, 118 tractors and 230 trailers, deliveries of which began in May and are expected to continue until October. The notes would be issued to the Guaranty Trust Company of New York, and would comprise a short-term arrangement to be supplanted by a long-term financing plan involving chattel mortgages. When the permanent plan is framed it will be submitted to the commission for approval. Meanwhile, the notes would bear interest at the "current prime rate" (4% when the application was prepared), and each of them would mature not more than six months from the date of its issuance.

WABASH.—To assume liability for $6,615,000 of equipment trust certificates, the second and final installment of a proposed $10,395,000 issue, the whole of which would finance in part the acquisition of 1,400 freight cars at an estimated total cost of $13,045,374 (Railway Age, Jan. 7, p. 38). The certificates would mature in 15 annual installments, beginning January 15, 1958. They would be sold by competitive bids which would fix the interest rate.

WISCONSIN CENTRAL.—To issue a $432,000 promissory note, secured by a chattel mortgage on 50 DF box cars to be built in its own shops at an estimated total cost of $545,161. Twenty-five cars would be insulated, and their estimated unit cost is $11,615; estimated unit cost of the other 25 is $10,191. The note would be issued to the Northwestern National Bank of Minneapolis, Minn. It would be payable in 96 monthly installments, and the interest rate would be 4¼%.

Dividends Declared

ALLEGHENY & WESTERN.—guaranteed, $3, semiannual, payable July 1 to holders of record June 20.

BOSTON & ALBANY.—$2.50, payable June 29 to holders of record June 18.

BEECH CREEK.—50c, quarterly, payable July 1 to holders of record June 14.

CANADIAN PACIFIC.—75¢, semiannual, payable August 1 to holders of record June 21.

CHESAPEAKE & OHIO.—common, $1, quarterly, payable September 20 to holders of record September 3; 3½% convertible preferred, 87½¢, quarterly, payable November 1 to holders of record October 7.

CINCINNATI, NEW ORLEANS & TEXAS PACIFIC.—$4, semiannual, payable June 24 to holders of record June 7.

COLORADO & SOUTHERN.—4% first preferred, $2, payable July 24 and September 20 to holders of record July 9 and September 4.

EAST PENNSYLVANIA.—$1.50, semiannual, payable July 16 to holders of record July 1.

MASSAWIPPI VALLEY.—$3, semiannual, payable August 1 to holders of record July 1.

NEW YORK & HARLEM.—common, $2.50, semiannual; 10% preferred, $2.50, semiannual, both payable July 1 to holders of record June 14.

Organizations

Great Lakes Regional Advisory Board.—A quarterly meeting will be held at Charlevoix, Mich., June 27-28. The Michigan Railroads Association will be host at a social hour preceding a dinner on the 27th, at which Charles A. Pinkerton, Jr., president, Detroit & Mackinac, will be speaker. A report by the passenger committee, organized at the March meeting, and a report on the national transportation situation by Caleb R. Megee, vice-chairman, Car Service Division, AAR, will be presented on the 28th.

Railroad General Agents Association of Los Angeles.—Newly elected officers are: President, C. O. Huff, Rock Island; vice-presidents, M. C. Mauhs, Baltimore & Ohio, R. L. D. McAllister, Santa Fe, and Ted H. Presby, Kansas City Southern; secretary-treasurer, Richard Mercer, New York Central.

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Questions and Answers

Of current interest to the Transportation Department

What does consignees' failure to remove dunnage from cars mean to the railroads in terms of lost car days? And has there been any recent improvement in patrons' cleaning of cars after the load has been removed . . .

?

Some answers to this question appeared in the April 1, April 15, and May 13 issues. Then, on May 27, this column carried comments on the subject by an industrial traffic man. These comments suggested that consignees be charged demurrage until cars are unloaded completely. This suggestion prompted the chairman of the National Association of Shippers Advisory Boards' National Joint Clean Car Committee to write me. My thanks to L. E. Olson, assistant director of traffic for Great Lakes Carbon Corporation, and chairman of the committee, for his thoughtful letter.–*G.C.R.*

Yes. Clean car program is getting results.

The dirty car problem—or to state it in other words, the failure of some receivers to release their cars free of debris, bracing, blocking, etc.—is old. Over the years this subject probably has received more lip service, but less active attention, than any other single transportation problem.

Penalty charges in one form or another have been suggested frequently as remedies. However, when considering any form of penalty charge we must not overlook the magnitude of the problems which the making and enforcing of such regulations would create. I am convinced that it would be virtually impossible for the railroads to maintain records comparable to demurrage reports on the condition of all cars released in every community. (This would include the large stations as well as smaller communities and country locations of receivers.) Because of the difficulties of policing all locations either specifically on releasing of dirty cars or tied in with demurrage reports, we must not overlook the involvement of the human element and the potential danger of discrimination of one receiver against another.

I would be the last one to say that there is no transportation problem impossible of eventual solution. From my close association with the clean car activities of the Shippers Advisory Boards, I firmly believe that we should exhaust first the maximum possibilities of our present program of shipper-carrier cooperation before inviting —or agitating for—any further regulations in transportation.

The national clean car program is less than three years old. I am certain that those familiar with that program will agree that our progress so far is beyond what was originally most optimistically anticipated. The statistics as shown on the latest summary and recapitulation definitely prove this. What cannot be included in such statistics is the progress made in many communities where no check has been made, although many receivers voluntarily release their cars clean because of the publicity given to our program. Those of us closely associated with the clean car program hear of this cooperation from many different channels, and therefore, such a statement is not just idle words.

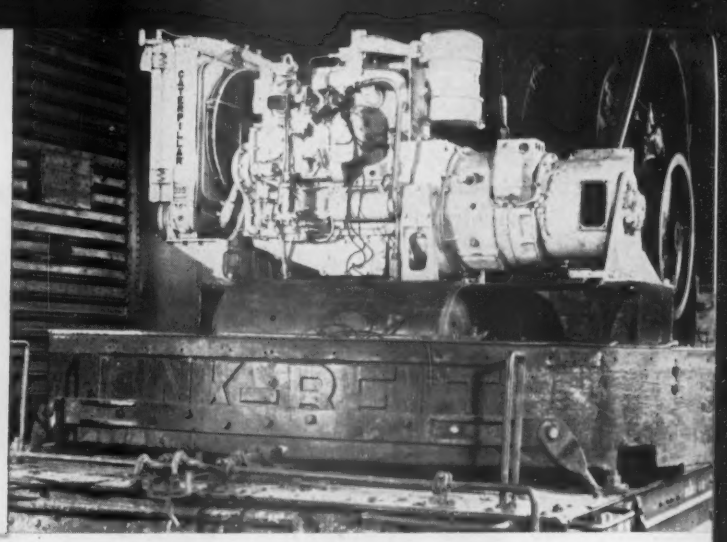
It naturally is discouraging to find that there are some receivers who for one excuse or another refuse to cooperate, but in the balance they are a very small minority. The persistence of the local car efficiency committees, railroad operating, traffic and transportation officers and the Association of American Railroads' field men in dealing with these reluctant receivers will eventually—through this medium of education—make them realize the benefits to be gained by the national program and thereafter accept their responsbility for cleaning cars and join the ranks of the majority.

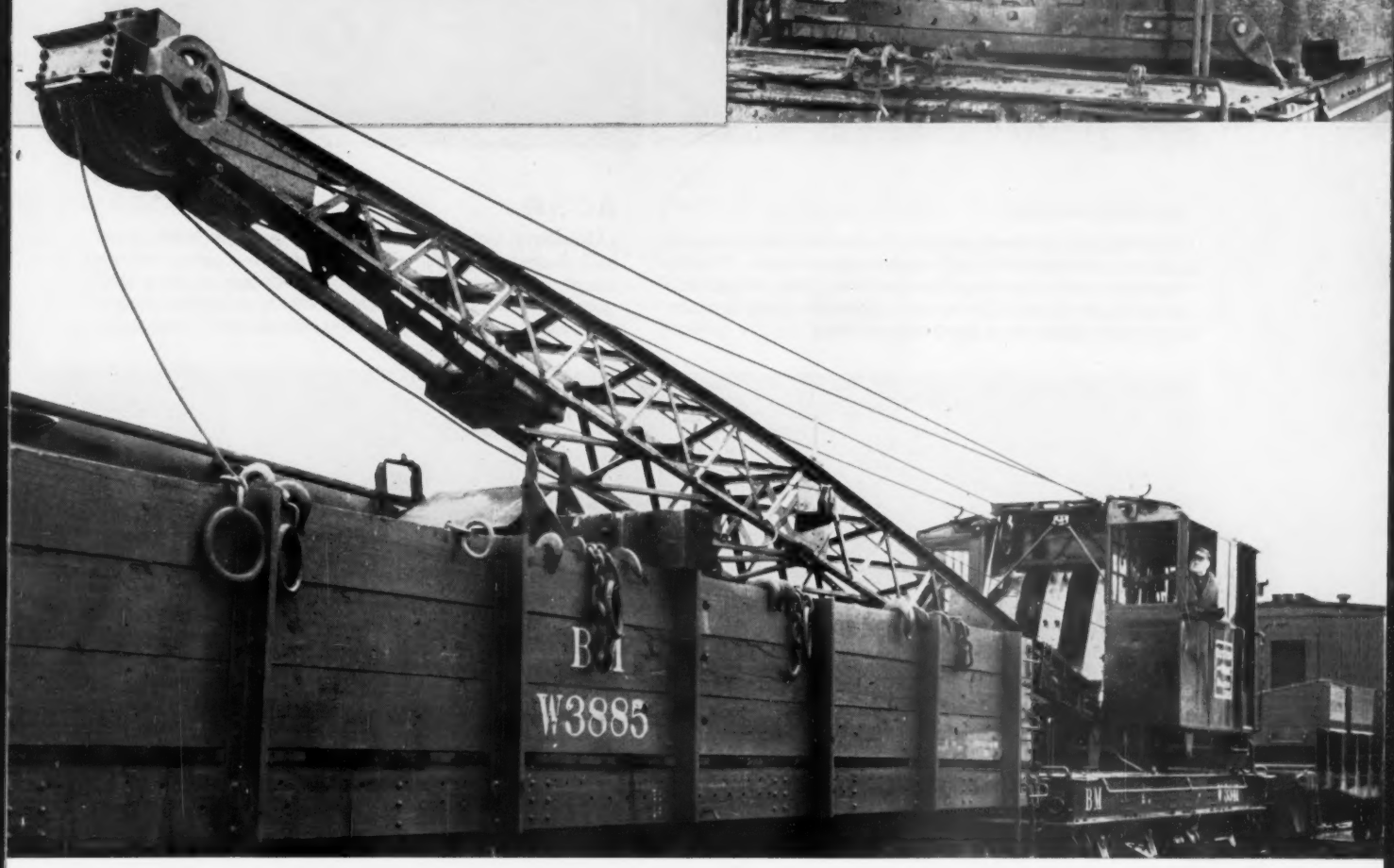
A program as ambitious and as large as ours cannot be expected to fully realize its goal in a few short months or years, but given time I am sure we will reach our goal without resorting to penalty charges.

There have been other transportation problems resolved through the important medium of shipper-carrier cooperation. There is no reason to believe the clean car problem cannot likewise be resolved in the same manner.—*L. E. Olson, chairman, Shippers National Clean Car Committee.*

CONDUCTED by G. C. RANDALL, district manager, Car Service Division (ret.), Association of American Railroads, this column runs in alternate weekly issues of this paper, and is devoted to authoritative answers to questions on transportation department matters. Questions on subjects concerning other departments will not be considered, unless they have a direct bearing on transportation functions. Readers are invited to submit questions, and, when so inclined, letters agreeing or disagreeing with our answers. Communications should be addressed to Question and Answer Editor, Railway Age, 30 Church Street, New York 7.

The Boston and Maine STANDARDIZES ON CAT* DIESELS FOR 10 LOCOMOTIVE CRANES





This Link Belt locomotive crane is just one of 10 such units which the Boston and Maine Railroad is dieselizing with Caterpillar Railroad Engines. Converting from gasoline engines, the railroad found an immediate fuel savings—they now use only seven gallons of low-cost fuel oil per crane for a full 8 hours of operation.

With a Cat D315 Torque Converter Power Unit, this self-propelled 15-ton crane with 40-ft. boom polices a 200-mile stretch. It covers about 15 miles a day on track work. The torque converter power unit produces smooth, load-matching power that gives extra pull under heavy loads and extra speeds on light loads.

The wide range of Cat Railroad Diesels, which can develop up to 650 HP (maximum output capacity), makes it possible for you to save money by standardizing on them for locomotives, rail cars, work cranes and many other types of equipment.

That way, maintenance is speeded up since mechanics need know only one make of engine. Parts can be interchanged. You use the same type of fuel, lube oil, grease and tools on all engines. And your nearby Caterpillar Dealer stocks all the parts for you.

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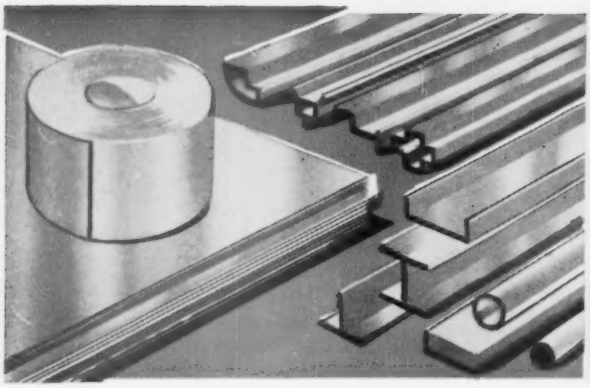
MODERN HEAVY-DUTY RAILROAD POWER



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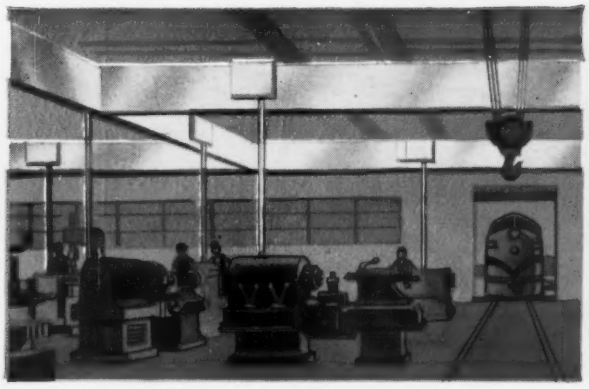
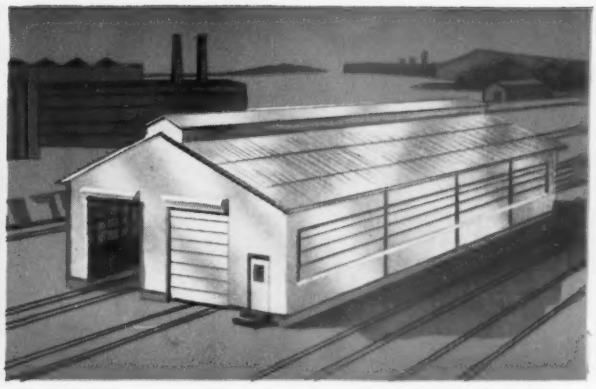
puts a protective shield on rustable metal and masonry surfaces. It guards against rust. It reflects up to 85% of hot sun rays—eliminates expansion problems. It beautifies as it protects. One coat lasts and lasts—reduces maintenance costs without sacrificing protection.





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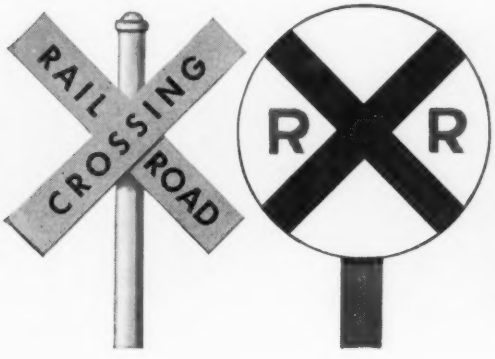

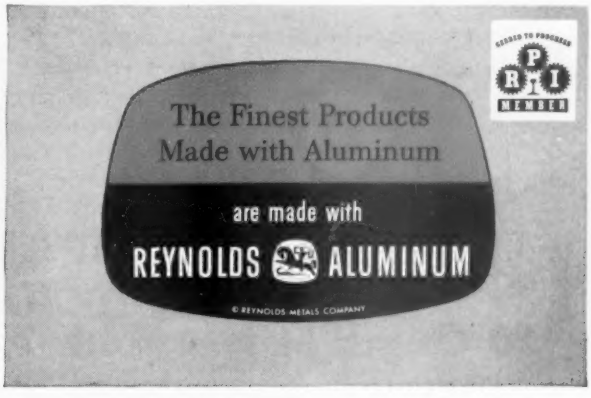

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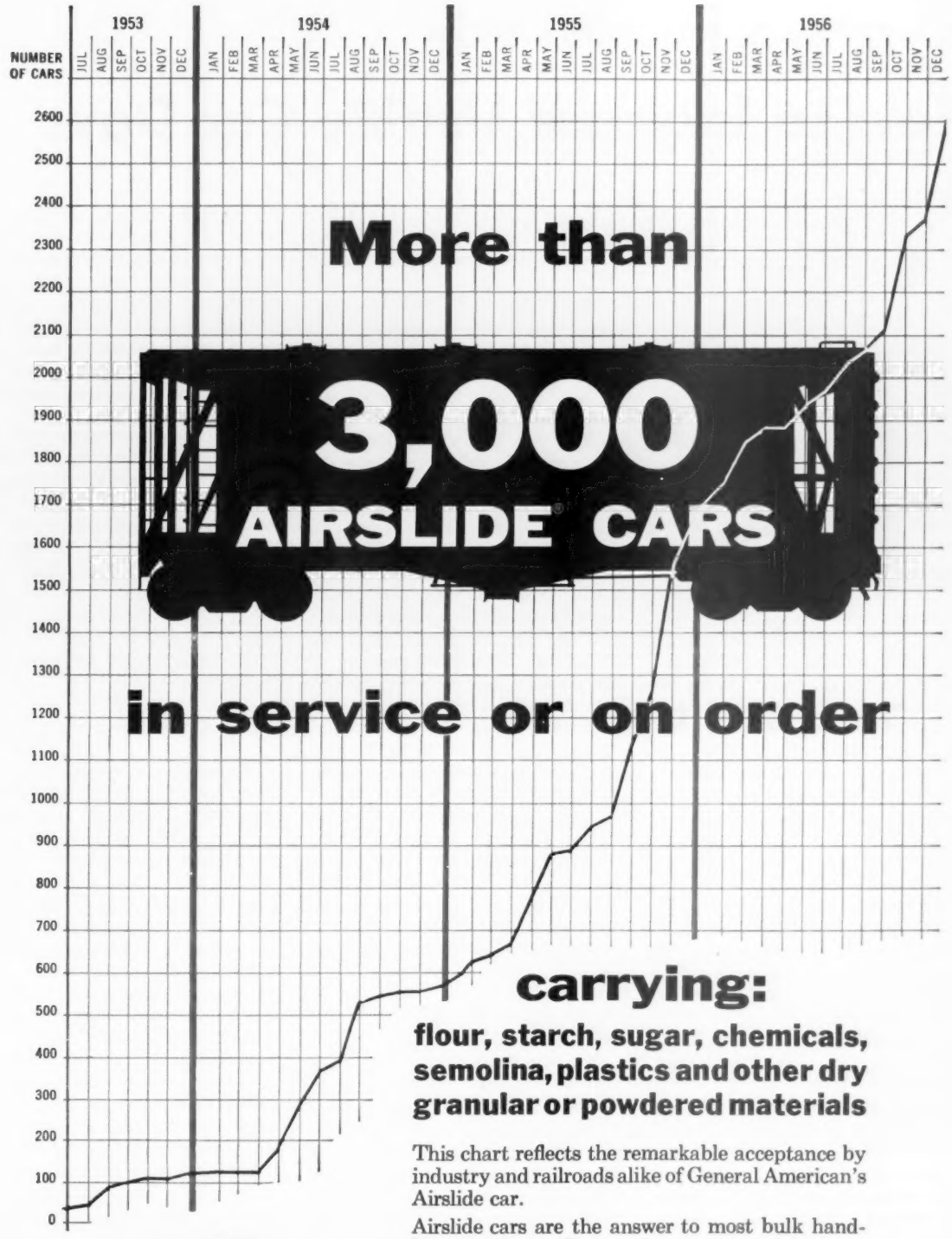

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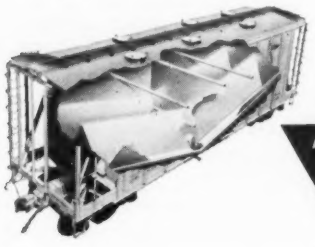

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CGA RIP TRACK PROCEDURES SHOW . . .

How to Increase Usable Car Days

- Where to Put Light Repair Tracks
- What to Use in Equipping These Operations
- How to Man Them for Maximum Efficiency
- When Light Repair Tracks Should Be Switched

The Central of Georgia's management believes that eight hours is the maximum time any freight car should remain on a repair track for routine light repairs, such as wheel changes, box repacking, safety appliance defects or rebrassing.

It would be desirable, that road's superintendent motive power and equipment, W. H. Mims, said recently, if that standard prevailed generally throughout the country. It can be accomplished, he told the Railway Systems & Procedures Association, only where repair track facilities are properly arranged, forces assigned around the clock, and operating departments give complete cooperation in the matter of switching repair tracks at least once each shift.

Really surprising savings can be effected by reducing the time that freight cars are out of use because of routine bad order conditions, he pointed out. On the Central of Georgia, for instance, it was found that a large percentage of cars bad ordered for routine light repairs were being held on rip tracks for two and three days because of poor switching services, poor arrangement of tracks within the rip track facility itself, and one-trick operation.

With 150 to 200 cars on light repair tracks—a representative figure for average conditions—it was calculated that the road was wasting at least (2.5 days x 150 cars) 375 car-days for each 150 cars bad ordered for light repairs. Now with its new light repair facilities and around-the-clock force assignments at these points, the road is saving 225 car-days on every 150 cars bad ordered for light repairs. These 225 cars, now available for on-line loading, otherwise would have cost, at best, $2.75 per day, said Mr. Mims. This alone is a saving of $618.75 per day or $225,843 per year, and actually is a conservative figure, he explained, because there often are more than 150 cars on CGa repair tracks.

If the national average for detention of freight cars on light repair tracks is anywhere near this figure, then the railroads stand to save approximately $40,000,000 per year in lost car-days and per diem charges through a general program such as the CGa has initiated, the speaker said. This estimate he based on the fact that his road comprises approximately one-half of one per cent of the nation's total railroad operation. In addition to the real savings in terms of reduced car hire accounts, other less obvious savings are those which accrue by reduced claims on delayed loads and improved shipper relations —particularly on bad order loads expeditiously handled.

Adequate Facilities

Repair tracks in Mr. Mims' purview are the light repair facilities of the type generally provided in large yards. The most important single physical feature of the modern repair track is its location relative to the yard lay-out, he said. It should be reasonably close to facilitate bad-order car setouts and pick-ups, but it should not be set down in the middle of the yard just for switching convenience at the expense of adequate working space and proper repair track arrangement.

The ideal repair track facility would, he said, have access to yard switching leads at each end so bad order cars could be placed from one end and repaired cars moved out from the other. Where this condition cannot be met, more track storage space must be provided for an equally efficient operation. Mr. Mims agreed that there is no one best arrangement for laying out a rip track. Each yard has its own particular requirements which dictate the layout. When modernizing existing facilities, opportunities are even more restricted.

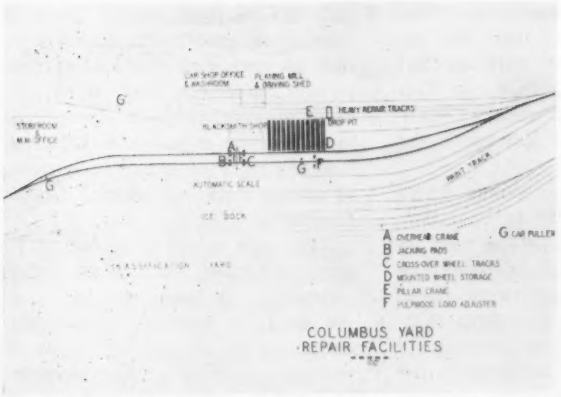
The Central of Georgia is convinced that the most efficient way to perform light repairs to freight cars is by the so-called "spot" method. Each car in turn is moved to the work location and spotted over jacking pads and under an overhead crane where the actual repairs are performed. When repairs are completed, the car is moved out to the other end of the repair track to await movement back to the yard.

Tools Are Handy

By providing everything that is normally needed at one central work location, the production line can be brought to freight car repair tracks. The benefits to be gained from production line methods are well known, said Mr. Mims, and in the case of light car repairs on rip tracks the improvement in efficiency, he finds, is even more pronounced.

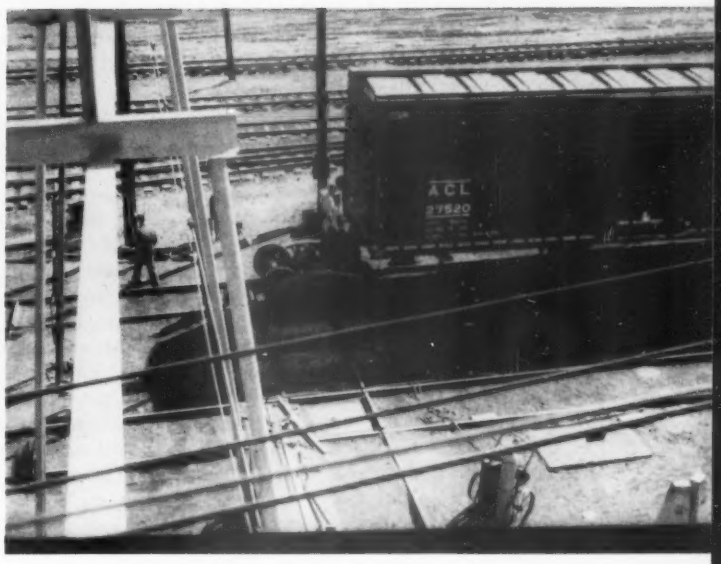
"Tools are always where they are needed and there is no need for the men to be continually walking back and forth from the tool room to the job. Electric outlets for welding machines and compressed air for hand tools and air jacks are provided at each work location. Portable oxy-acetylene welding and cutting rigs are kept on the spot. Concrete jacking pads are provided so that either or both ends of two cars on each repair track can be jacked up for truck removal without blocking. When removed, trucks are worked with the aid of either an electric hoist or a ratchet hoist hung from an overhead tramrail, pillar crane, or A-frame.

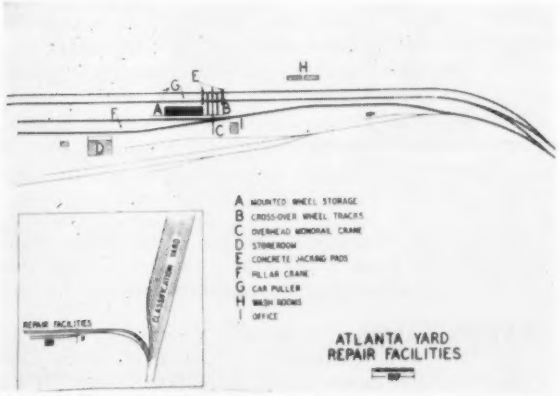
"Heavy material, such as wheels, side frames and bolsters, should be handled by mobile cranes. Cars are



THROUGH track arrangement for light car repairs was achieved at Columbus, Ga., by utilizing two tracks formerly used for storage of company coal. They connect at both ends with yard leads and make possible movement of cars in one direction through this repair facility.

RESPACING the two tracks at Columbus, rearranging wheel storage tracks, and installing an overhead tramrail, jacking pads and car puller have made possible an operation which the Central of Georgia has found can make repairs rapidly and at considerable savings over former arrangement.





DEAD-END spurs have been utilized successfully for light car repairs at Atlanta, Ga. CGa finds that this arrangement requires more track space for equal car repair capacity and efficiency, but with good switching service is a very satisfactory operation.

BRINGING cars to the tools, rather than moving tools to the cars, has been theory behind an increasing number of "spot" type light car repair facilities. Car detentions at points such as Atlanta are now a matter of hours rather than of days as was formerly the case.

either spotted with a car puller or a Trackmobile. At points without mobile cranes for handling wheels, we utilize 3-ton, air-powered pillar cranes to load and unload wheels to and from wheel cars and for placing them on wheel storage tracks.

"Sufficient storage tracks are provided so that one track is available for each size of cast iron, one-wear and multiple wear steel wheels normally needed for each point. This eliminates handling wheel sets over each other and sorting each time a particular type wheel is needed.

"When wheels are taken out of storage, they are rolled on to a dolly on light rails which run across the end of all the wheel tracks and parallel to the repair tracks. The dolly is rolled to the repair point, and the wheels are rolled off the dolly onto a cross track, rolled to the center line of the repair track where they are rotated by an air jack and finally moved into position. This system works well and is probably by no means unique to the Central of Georgia. At any major repair point where a large number of cars are handled, a mobile crane is almost a necessity because of the many miscellaneous operations that it can perform and which would otherwise require considerable time of labor forces.

"The Central of Georgia has six points where a considerable amount of light repairs are required in connection with the interchange of for-

eign cars. In order of the amount of work performed, these are Macon, Columbus, Atlanta, Savannah, Chattanooga and Albany. In 1954 the Columbus light repair tracks were modernized (Railway Age, Aug. 16, 1954, p. 24) and in 1956 we modernized the rip tracks at Atlanta (Railway Age, April 23, 1956, p. 28). We are now in the process of building a new yard with modern light repair facilities at Chattanooga and are presently completely rearranging our Macon Yard rip tracks.

"All of these rip track modernizations and rearrangements have been and will be accompanied with reassignment of forces so that around-the-clock, seven-day-week operation is provided. Assignments are made so that men working in yards as car inspectors are utilized for manning the repair tracks on those shifts when fewer train yard inspections are required. This results in greater utilization of the men's time than is otherwise possible, because there are periods when either few cars are bad ordered or fewer trains are run. This arrangement has practically eliminated overtime at no increase in the overall labor cost.

"At the two repair points where this system is already in operation, this assignment of forces has been accomplished by merely dividing the force working on shop repair tracks eight hours per day into three shifts of eight hours each and spreading out the assignments to cover. This has also given inspection forces additional time for inspecting cars placed on industrial tracks, assuring, as far as possible, that only the proper class cars are supplied and aiding in proper loading of commodities requiring special consideration.

"These facilities and procedures have made it possible for the Central of Georgia to keep up with light repairs to freight cars without any additions to assigned forces during a period of very high car loadings and general business activity. It has also been possible to meet today's demands for car repairs and inspections resulting from the growing complexity of rolling stock and general railroad operations.

"This last seems to be one of the most important features of today's railroading problem and points up the need for keeping our individual operations up to date, but within the realm of everyday accomplishments," declared Mr. Mims. He said this calls for progressive supervision and a need for instilling in car repair people the desire for pride of workmanship and accomplishments in their daily tasks. "If this can be done, we can expect an improvement in repair track operations which will be reflected in better car utilization, and which will decrease our operating costs."

Railroading After Hours with Jim Lyne

WHAT TO DO WHEN SNOWBOUND—Henry F. Sturgis—retired banker with a wide acquaintance among railroaders, and an Erie director—showed me recently some pictures and a memorandum he had from a friend who was a passenger on one of the trains which was snowbound for a couple of days last winter. The snow was over the roof of the cars in some places.

This passenger found the crew sympathetic and eager to be helpful—but he had a couple of constructive criticisms. One was that, when trains are snowbound, heating and ventilating systems cannot be operated—a condition for which there's probably a remedy that wouldn't be too costly.

Another observation was that there seemed to be no one in the crew exercising overall authority (e.g., to assure equitable distribution of scarce food supplies). His opinion was that a comprehensive program should be worked out for dealing with such emergencies, with each employee's duties clearly defined—and that all employees should be instructed in it.

BETTER TERMINOLOGY—On the matter of railroad terminology, which I mentioned briefly here last week, the Railroad Public Relations Association has a number of suggestions under consideration besides the ones I reported. "Safety control" would replace "dead man control"; "labor demands" would become "union proposals"; a "retarder yard" would be an "automatic yard."

A freight "solicitor" would become a "freight salesman." "Team track" would be "public track." A "wrecker" would become a "crane." And railroads would be railroads and not "carriers." The use of the word "transportation" (to mean a ticket or a pass) would be abolished. Are there any further suggestions?

STATION NAMES—On the New Haven there was, until recently, a station at South Kent, Conn.—but the station wasn't called South Kent. It was called Woodrow, a name having no local significance whatever. Upon inquiry, I got the unofficial explanation that a distinct name for the station was a public service commission requirement. Where on a line there is one station known as Podunk, the regulators believed mistakes in train orders would be invited by having, also, a West or South Podunk on the same line. This is the first time I recall ever running into this prohibition. Does it occur anywhere else?

RAILROADS NAMED TOWNS—In many parts of the West—where railroads preceded settlement—most of the towns took their names from the stations which the railroads established and named. The town where I spent my earliest years (Slater, Mo.) was named by the Alton Railroad after one of its directors, when it set up a division point in what had previously been a cornfield.

I seem to recall that there was a division on either the old Grand Trunk Pacific or Canadian Northern where stations were given names beginning with each letter of the alphabet, in order—but I can't corroborate this with anything I could turn up in a current Official Guide.

Nevertheless, I don't suppose there has been any other influence as strong as the railroads on place names in a good many of the newer states and provinces.

New Role Framed for Accountants

D. J. Russell and other speakers at Accounting Division meeting see functions and responsibilities beng expanded.

The concept of the railroad accounting officer as a sort of statistical historian—if it was ever valid—has vanished like the bison, the Indian and the five-cent cigar.

A vital new role as a shaper of policy and sharer in broadened responsibilities was projected at the annual meeting of the AAR Accounting Division at Dallas.

The chief railroad accounting officer should be a "member of the management team," D. J. Russell, president of the Southern Pacific, told the division. Working with other officers to provide facts timed and geared to better operations, the accounting officer should eliminate preparation of "historical" data that only raises costs, consumes space and perpetuates useless jobs, Mr. Russell asserted.

He lauded the division for advances in streamlining paperwork—chided members for a "tendency not to expand their thinking and curiosity beyond accounting limits."

More Standardization

Mr. Russell also stated that there is still much to do in cutting costs of inter-road paperwork—a subject also dealt with by H. D. Murphy, partner, Price Waterhouse & Co.

Portraying the operations of a railroad "some time in the (foreseeable) future," Mr. Murphy envisioned not only a centralized data processing bureau serving all arms of the railroad, but also such developments as these: standardized, mechanized car identification codes; exchange of tapes for interchange and junction reports and per diem settlements; industry-wide reports on car availability; a "test checking process" for car repair billing; joint regional departments for car accounting — eventually giving way to consolidated national bureaus; elimination of non-pertinent information (now serving as aid and comfort to competitors) from railroad reports and — the ultimate — 30 page form "A" reports.

Other speakers at the meeting included Texas & Pacific President W. G. Vollmer; Commissioner Everett Hutchinson of the ICC; Chairman P. J. Kendall, SP vice-president and general auditor; and AAR Vice-President A. R. Seder.

At a press conference preceding the June 11 sessions, Mr. Russell told reporters he hoped his address would stimulate accounting officers "to do more than report things that have happened—to develop costs so we can forecast" conditions to guide operations.

He complained that present cost information is generally "inadequate for thorough knowledge of what is taking place."

In his address, he said that accounting practices developed in a way analogous to formation of safety rules —after accidents occurred, to prevent recurrence. He warned lest in traditional functions of "safeguarding the cash, revenues and assets of the company" the accounting departments retain safety measures more costly than what they are protecting.

"Temporary hardship" in added costs may be necessary but are worthwhile in eliminating paperwork "barriers between roads and between departments," the SP president said. "I feel we should be willing to accept such costs, regarding them as short-term investments to promote long-term economies. We must get better integration in our planning and more modern thinking in the area of accounting and audit controls."

Mr. Russell commended the group for attention to "time and effort saving machines and new techniques" in procedures—urging intensified efforts in its own and other departments.

"This is no time to let tradition restrict railroad thinking," he stated; the accounting officer can no longer let his duties fall behind "the stepped up tempo of the physical aspects of our operations and the fast changing trends of our business. . . . There is no place for wasting time and effort in furnishing information which is of doubtful value. Nor . . . can executive officers afford not to give accounting departments the support and stimulus needed to encourage them to keep pace with the transition in modern transportation."

Mr. Russell said it could be the accounting officer's responsibility to provide answers to such management questions as these:

"What does it cost to move specific types of commodities and to provide special equipment and services, and

continued on page 48

VOLLMER INDEXES JOB CUT OUT FOR RRS

Going beyond strict accounting department matters, Texas & Pacific President W. G. Vollmer catalogued the railroads' problems and what they must do to solve them this way:

- Use the positive approach in selling services, encouraging new ideas and methods.
- Be progressive and aggressive, finding and using new services and equipment.
- Develop a public awareness about tax-free [illegible] facilities.
- Inform the public of municipal bond [illegible] benefiting airlines.
- Document the case that unsubsidized waterways transport is high-cost service.
- Be faint-hearted no long[illegible] about subsidies to competitors.
- Stand up and fight against discriminatory regulation.
- Publicize railroad progress in all phases.
- Draw a fine publicity bead on the problem targets.

ERIE MINING'S DIESELS spent last winter in a tunnel. This is how they looked on the way to storage.

TUNNELS, DIESELS AND AIR-BRAKE TRIALS . . .

Mining Road Is a Proving Ground

New 73-mile mining railroad is providing some colorful and useful information for the industry—even though it's not yet in regular use.

Erie Mining Company's plant-to-harbor railroad in northern Minnesota will, beginning about July 15, be the site of extensive performance trials on new air-brake development. And to pull the trains, the road will use diesels which spent the winter in a tunnel, safe from the effects of dampness on the electrical parts of locomotives not in regular use.

Planned for next month are evaluation trials of Westinghouse Air Brake's AC valve in conjunction with the pressure-maintaining feature of the locomotive brake valve and using Railroad Friction Products' Cobra composition brake shoe. The tests will have two purposes: to provide a good look at what the brake components can do, and to give Erie Mining's railroaders some standards by which to operate their new property.

Erie Mining's $300 million-plus taconite project represents one of the biggest private construction jobs of any type. Its managers, Pickands Mather & Co., believe it to be the largest single iron-ore mining venture ever.

Operation Begins in Fall

The railroad runs from a taconite pellet producing plant at Hoyt Lakes, Minn., 73 miles to a dock at Taconite Harbor on Lake Superior. Currently it is operated only as needed in the construction of the facilities it ultimately will serve, but when taconite production gets into full swing the railroad will haul to shipside the plant's total output of 7½ million tons of pellets a year. The taconite pellets will be almost two-thirds iron.

Actual full-scale operations of the taconite plant are expected to begin this fall after the Great Lakes shipping season closes. Pellets will be stockpiled through the winter and will begin moving in 96-car, 12,700-ton trains in the spring.

Trains will be unloaded at Taconite Harbor without uncoupling. The road's bottom-dump hoppers will be dumped into a 1,200-ft concrete hopper beneath the track atop the dock. Twenty-five Link-Belt belt conveyors will empty the hopper pockets directly into the hold of the ship.

Erie Mining's railroad has the largest installation to date of the Westinghouse AC valve, with 500 sets in service. The Great Northern has 50 cars with the AC valve; Rock Island's 50 "Convert-A-Frate" cars are equipped; and ACF Industries is currently installing them on 500 ore cars for the

TACONITE HARBOR, to which Erie Mining's 73-mile railroad will deliver taconite pellets in 96-car trains, looks like this. Trains will come down the hill and dump their load in the hopper at shipside without uncoupling.

Duluth, Missabe & Iron Range. The AC valve has not yet been accepted for interchange by the AAR.

In essence, Westinghouse asserts that the AC valve allows quicker release of brakes with less sticking and facilitates releases at slow train speeds. Tests indicate that the brakes on the rear car of a 150-car train equipped with AC valves will begin to release 9 seconds after the brakes on the first car, as compared with about 50 seconds with the AB valve.

Advantages claimed for the AC valve by Westinghouse Air Brake are its diaphragm and spool valves, which largely do away with slide valves and ring-packed pistons and indicate savings from lower maintenance requirements. The AC valve's removable portions also are about 40% lighter.

In the Erie Mining trials, 150-car trains equipped with AC valves will be operated in conjunction with the pressure-maintaining feature developed by Westinghouse for locomotives. The device does away with the use of retainer valves by making up brake-pipe leakage and permitting a given brake-pipe reduction to be held constant for a considerable period. Erie Mining's cars are equipped with Cobra brake shoes which are designed by their manufacturer to retain a higher constant coefficient of friction than cast iron shoes throughout the range of braking force.

Among the locations chosen for the trials is the 7½-mile stretch of 2% grade leading down to Lake Superior at Taconite Harbor.

A Tunnel "Roundhouse"

Mother Nature, plus some northern-railroad ingenuity, kept 27 of Erie Mining's 30 diesel units safe from the winter this year in an unusual manner —inside an 1,800-ft tunnel.

Erie Mining figured that its tunnel near Cramer was the best—in fact, the only—place that the diesels could be kept. Stored were 15 Alco road-switchers of 1,800 hp; a Baldwin-Lima-Hamilton 1,200-hp switcher and 11 1,750-hp road units built by Electro-Motive Division of General Motors. Erie Mining has three more Baldwin switchers which it used at the Hoyt Lakes mill during the winter.

The stored diesels weren't altogether immobile. Two EMD units were maintained in ready-to-run condition. During the winter they were started periodically to move the entire string a few feet inside the tunnel to keep oil on their bearings. They also hauled the stored engines from the tunnel to allow supply trains to pass.

In these two diesels—EMD F-9 leading units—Vapor Heating Corporation Watchman heaters kept the water in the engine blocks between 140 and 170 deg. The heaters, which are automatic, burn about a gallon of diesel fuel an hour to keep the engines up to temperature. The road indicated it will install heaters on all units.

Erie Mining wasn't as concerned about Minnesota's frigid winter temperatures as it was about the tunnel's humidity and the possible effect of dampness on the diesels' electrical parts. So it sealed the tunnel portals and installed two 450,000-Btu space heaters to provide dry heat and humidity control. A 25-kw Caterpillar diesel generator set, mounted on a flat car spotted outside the tunnel, provided power. Two Erie Mining employees stayed with the stored diesels, living in fully equipped cabooses.

The stored diesels were "winterized." A protective oil was run through the cooling system and engine block, and then both were drained. Vapor Phase Inhibitor was sprayed inside fuel tanks, electrical lockers and manifolds.

TRAINING PROGRAM PRODUCES

Railroaders from Young Engineers

For seven years the Baltimore & Ohio has been conducting a training program for engineering graduates. On July 1 another group of young engineers will embark on this two-year course.

How was the program started? How does it work? Have modifications been made in the original plan? If so, why? And finally has it given satisfactory results? The answers are given in this article.

A training course for young engineers has been feeding its graduates into B&O supervisory ranks since September 1952.

Has the course been fulfilling its purpose to "train technical college graduates for responsible positions with the company, and to establish a reservoir of well-trained men from which supervisory vacancies may be filled"?

Clarence H. Holtzworth, manager personnel, says: "We are pleased with the fine performances of our former technical trainees. We feel that their theoretical background, coupled with the comprehensive practical training which this course provides, gives them an admirable start in their railroad careers. The work they are doing is quite convincing."

One measure of the value of the course is found in the fact that in the space of a few years its graduates are occupying positions as assistant superintendent, trainmaster, assistant trainmaster, division engineer, assistant division engineer, assistant engineer-electrical department, assistant engineer-engineering department, and methods analyst in the research and development department.

How It Was Started

The course was inaugurated in 1950 under the stimulus of Roy B. White, then president of the railroad and now its board chairman. President Howard E. Simpson continues to give support to the program.

Research the B&O did following World War II showed the need for more technically trained men in the operating and maintenance organizations. It also showed that some of the industry's competitors had a "corner on the market" for graduates of technical schools. As a result the railroad's management decided to undertake studies aimed at starting a program for recruiting and training engineering graduates.

In January 1948 an advisory committee, headed by Frank J. Goebel, vice-president-personnel, and composed of interested company officers, was formed to get the work started.

Mr. Holtzworth was given the job of developing an acceptable program. He took to the rails in his investigation of the ways this problem was being tackled by other companies.

By 1950 the Advisory Committee had a plan to submit to the B&O president and board of directors. The plan was adopted and a permanent Selection and Training Board was formed to supervise the interviewing and selecting of trainee candidates, to give guidance and counsel to trainees, to determine the general training procedures and to approve the final placement of the trainees.

The present Selection and Training Board consists of E. S. Rupp, assistant to vice-president-operations (chairman); F. B. Rykoskey, general superintendent motive power and equipment; K. J. Wagoner, chief engineer; C. R. Riley, chief engineer-maintenance of way; A. L. Jordan, signal engineer; J. H. Wallis, superintendent communications; and Mr. Holtzworth.

The mechanics of the course are supervised by Matthew H. Bradway, the B&O's director training. He works with members of the training board, with departmental guidance supervisors who plan the training within the departments, and with more than 150 carefully chosen instructing supervisors.

"We have had unusually fine cooperation from our supervisors over the system," says Mr. Bradway. "When we started the course we brought all instructing supervisors to headquarters for training sessions. We discussed all phases of the program, such as organizational control, instructing techniques, development of training outlines and materials, evaluation of trainee performance, etc. These conferences took the 'mystery' out of the program and gave the supervisors a real sense of participation. We review our training methods periodically."

The course originally was two and one-half years in length. During the training of the first technical trainee group it became obvious that certain modifications in the course could be made. Board members, guidance supervisors and trainees pooled their ideas in working out the problems. Experience showed that a concentrated two-year course would provide the desired background for the technical graduates with the result that the length of the training program was reduced accordingly.

First Phase, "Preliminary"

The course is divided into two phases—preliminary and intensive. The preliminary phase is primarily one of observation and functional study. During this period the trainees are rotated through the various departments in the operation and maintenance organization on a carefully planned schedule. It covers 55 weeks and includes instruction periods of 10 weeks each in the enginering,

TECHNICAL TRAINEES Douglas R. Webb, Robert A. Sharp and Robert W. Breiner get pointers on track maintenance from J. H. Lindsay, division engineer.

SIGNAL ENGINEER A. L. Jordan explains a new signal instruction panel to Trainees Kent P. Shoemaker, Walter E. Schmoll, Harold E. Meeker and J. F. Dunseth, Jr.

maintenance of way, motive power and operating departments, and 5 weeks each in the communications and signal departments.

During the first 50 weeks an attempt is made to show the trainees all types of operational problems. The men are on "departmental call" and share the experiences of their instructors.

Following the operational assignments, one week is devoted to a study of pre-supervisory subjects, viz., job instruction, job methods, human relations, conference leading and program development. These studies are considered important because soon after completing the course the young engineers will face the day-to-day problems of the supervisor.

Second Phase, "Intensive"

Three weeks are spent in orientation visits to other company departments, such as finance, treasury, accounting, law, personnel, traffic, purchasing and public relations. A one-week vacation completes this phase.

Near the end of the 55-week period the trainee, with guidance from the Selection and Training Board, makes his choice of the department in which he will work the 49 weeks of the intensive phase of the course. In this part of the training, called the "work phase," the technical trainee may be assigned to one of the following departments: Engineering, maintenance of way, communications, signals, motive power (electrical or mechanical), or operations.

The period in the CT branch of the operating department is reserved for trainees who have a special interest in this particular phase of railroading. This is given the last 26 weeks of the course and includes training in station operations, yard operations, road operations, transportation, the general operating offices, and the operating rules. Those trainees who indicate a preference for "straight operations" are interviewed by the vice-president-operation and maintenance, and upon his approval these trainees are then assigned accordingly.

As the young engineers are guided through the course they are constantly being evaluated. They submit periodic written reports on their activities to the board. Each report is graded by the interested departmental guidance supervisor. The instructing supervisors also evaluate their work under such headings as: Interest in work, application, self-reliance, initiative, judgment, and ability to get along with people. The trainees have face-to-face meetings with the board members and the departmental guidance supervisors.

The B&O has done extensive "on-campus" college recruiting since 1951. This year, due to the competitive market for technical graduates, contacts with universities were increased. Forty-four technical schools were visited and 230 graduating engineers were interviewed.

The recruiting program was organized and coordinated by the personnel department. However, most of the interviewing this year was done by a "team" of former technical trainees. These men, who know the program details well, were given special instruction for the recruiting assignment.

The best-qualified prospects from among those interviewed are invited to company headquarters where they are interviewed by members of the Selection and Training Board. The leadership potential of each prospect is considered carefully.

Why the Program Has Been Successful

C. H. Holzworth, manager personnel of the B&O, explaining that "our technical graduate training course has been thoroughly investigated by railroads from coast to coast and by our Canadian neighbors," says its success has been due to a number of factors, such as:

- The wholehearted support given by top management.
- The intense personal interest of the officers on the Selection and Training Board.
- Careful attention to organizational detail and planning.
- Adequate training of instructing supervisors.
- An effective program of recruiting and selecting trainees.
- The flexibility within the structure of the two-year course.
- The care given to job placement.
- The five-year 'follow-up' program.

People in the News

ASSOCIATION OF AMERICAN RAILROADS.—William M. Moloney, newly appointed general solicitor, Washington, D.C., joined the AAR in 1954 as general attorney. He came from the Gulf, Mobile & Ohio, where he was general attorney for eight years.

Frank E. Martin, vice-president and comptroller, **Illinois Central,** elected 1957-58 chairman, Accounting division, AAR.

J. Paull Marshall named assistant to vice-president—legislation, Washington.

CHICAGO & ILLINOIS MIDLAND.—Harry H. Meyer, eastern traffic manager at New York, is retiring from active duty with this road after 30 years of service. The Traffic Club of New York, of which Mr. Meyer was president in 1941, is tendering a testimonial luncheon to Mr. Meyer at 12:30 p.m., June 26, Grand Ballroom, Commodore Hotel, 42nd Street and Lexington avenue, New York.

DENVER & RIO GRANDE WESTERN.—F. H. Booth, assistant general freight agent, Denver, appointed general freight agent, succeeding the late **A. G. Winter.**

DETROIT, TOLEDO & IRONTON.— Thomas P. Wall appointed eastern traffic representative, New York, and **Allan C. Hunter** named Canadian traffic representative, Toronto, Ont.

ERIE.—Harold D. Barber appointed assistant to general manager, Eastern district, Jersey City, N.J., succeeding **Arthur E. Hoffmann,** who retired June 1.

Carl E. Maahs, master mechanic, Hornell N.Y., transferred to Buffalo, N.Y., succeeding **Francis D. Kennedy,** who retired May 31.

FRISCO.—Stanley F. Stecher appointed general freight agent-divisions, and **Charles J. Hofmeister** named assistant general freight agent-divisions, both at St. Louis.

Robert L. Akins appointed supervisor freight loss and damage prevention, Springfield, Mo.

C. C. Lane appointed safety supervisor, Tulsa, Okla.

GREAT NORTHERN. — Ralph V. Backstrom, industrial and agricultural development agent, Seattle, Wash., appointed assistant director of industrial and agricultural development there. **Robert W. Morrison,** city freight agent, Portland, Ore., named industrial and agricultural development agent, St. Paul, Minn. Headquarters of **L. A. Richardson,** industrial and agricultural development agent, transferred from Ephrata, Wash., to Spokane.

William M. Moloney
AAR

J. Paull Marshall
AAR

GREENVILLE & NORTHERN.—D. U. Harrell appointed assistant secretary and auditor, Greenville, S.C., succeeding **C. W. Byrd,** resigned.

GULF, MOBILE & OHIO.—Frank J. Lott, assistant to president, Mobile, Ala., promoted to assistant to chairman. **Belin V. Bodie,** assistant vice-president and chief engineer, Mobile, named general manager. **Lawrence C. Windham,** assistant to executive vice-president and general manager, Mobile, promoted to assistant vice-president. **P. B. Bridges,** general superintendent, Meridian, Miss., appointed assistant general manager there. **J. R. Windham,** transportation engineer, promoted to assistant to general manager. **Patton B. Seals,** trainmaster, Bloomington, Ill., promoted to assistant to general manager, Mobile.

S. A. Cooper, regional engineer, system, Mobile, promoted to chief engineer, succeeding Mr. Bodie. **J. R. Harris,** assistant engineer, named principal assistant engineer, system. **W. G. Stubblefield,** assistant engineer, appointed regional engineer.

MILWAUKEE.—Effective June 1, **W. G. Powrie** resumed his position as chief engineer, Chicago, following a leave of absence (Railway Age, Apr. 15, p. 44). **V. E. Glosup,** acting chief engineer during Mr. Powrie's absence, appointed engineer of maintenance of way, in charge of all maintenance and construction.

B. J. Worley, principal assistant engineer, Chicago appointed assistant chief engineer signals and communications there. His successor is **W. E. Fuhr,** division engineer, Dubuque and Illinois division, Savanna, Ill., who in turn is replaced by **E. C. Jordon,** division engineer, Minneapolis.

C. L. Imhauser, signal inspector, appointed supervisor signals and communications, Chicago Terminal and Terre Haute division, with headquarters remaining at Chicago.

MISSOURI PACIFIC.—Richard H. Richter, assistant superintendent of communications, Houston, retired May 31.

PENNSYLVANIA. — Winfield G. Salmonson, assistant chief engineer—communications and signals, Philadelphia, appointed manager, operating rules, succeeding **Edgar E. Ernest,** who retired June 1.

ROCK ISLAND.—G. E. Mallery appointed director of personnel and labor relations; **F. J. Meyer,** assistant director of personnel and labor relations; **J. A. Gilluly,** manager of labor relations; **D. C. Rees,** superintendent of employment, pensions and group insurance; **G. T. Gilluly,** superintendent of personnel, and **R. J. McGarry,** personnel officer, all at Chicago.

SOO LINE.—Fordyce W. Crouch, general counsel, Minneapolis, elected vice-president and general counsel.

SOUTHERN PACIFIC.—Arthur J. Matula, Jr., assistant editor of publications, SP's Lines in Texas and Louisiana, Houston, Tex., named to newly created post of assistant public relations manager for the Southwest, Phoenix, Ariz.

H. W. Fairweather

Jack A. Liddell

Supply Trade

John W. Bergen has been appointed assistant vice-president of the **Symington-Gould Corporation** with headquarters in Chicago as heretofore.

Harold W. Fairweather has been appointed executive vice-president of **National Lock Washer Company,** and **Jack A. Liddell** vice-president, sales and market research. Mr. Fairweather formerly held the position of assistant treasurer, and Mr. Liddell was assistant to the president.

W. Conroy Wilson, who recently resigned as vice-president of **Ralph W. Payne Company,** has joined **James B. Akers** in forming **Southeastern Railway Supply, Inc.,** Arlington, Va., manufacturers' representatives and consultants to railroads in the southeastern area. Mr. Akers had previously been engaged in the railway supply business on his own account.

William M. Haile has been appointed president of **Linde Company,** division of **Union Carbide Corporation.** Mr. Haile progressed through the Linde sales organization, becoming manager of the eastern region in 1952 and vice-president of the company in 1955.

Frederic N. Melius, Jr., has been elected a vice-president of **United States Freight Company.** In his new capacity he will act as liaison between U.S. Freight and its subsidiaries.

Marsh & Truman Lumber Company has been appointed national sales representative of **Economy Buildings, Inc.,** in a new service to railroads, under the direction of **Percy H. Waller,** vice-president. Mr. Waller was for many years associated with **Pullman Company** and **Pullman-Standard Car Manufacturing Company.**

Jacque Jones, executive vice-president of **Huber-Warco Company,** has been elected president, succeeding **Don A. Howard,** retired.

Howard J. Russell and **Edmund M. Grant** have been appointed district sales managers at Washington, D.C., and Chicago, respectively, of **American Car & Foundry Division** of **ACF Industries, Inc.,** effective June 1. Mr. Russell has been assistant to vice-president in the division's general sales office in New York, and Mr. Grant has been a sales representative in Chicago.

OBITUARY

Samuel Miskelly, 81, retired signal engineer of the Western Railroad Supply Company, died May 29 in Hinsdale Sanitarium, Hinsdale, Ill.

REVENUES AND EXPENSES OF RAILWAYS

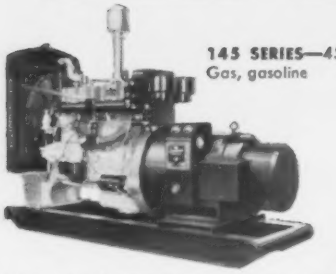
(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF APRIL AND FOUR MONTHS OF CALENDAR YEAR 1957

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1957	Total (inc. misc.) 1956	Operating Expenses: Maint. Way and Structures: Total 1957	Total 1956	Deprec. and Retirements	Maint. Equipment: Total 1957	Total 1956	Deprec. and Retirements	Traffic	Transportation	Total 1957	Total 1956	Operating ratio 1957	Operating ratio 1956	Net from railway operation	Railway tax accruals	Net Railway operating income 1957	Net Railway operating income 1956
Akron, Canton & Youngstown	April	171	$547	....	$562	$527	$72	$68	$6	$71	$54	$15	$45	$164	$398	$357	70.8	67.7	$164	$82	$53	$59
	4 mos.	171	2,140	....	2,184	2,073	280	280	24	282	243	56	179	641	1,574	1,477	72.1	71.2	610	303	186	203
Atchison, Topeka & Santa Fe	April	13,172	44,852	$3,024	51,995	49,068	7,800	7,372	698	10,884	9,445	2,195	1,396	17,093	39,394	36,413	75.8	74.2	12,601	6,764	5,516	6,212
	4 mos	13,172	168,220	12,037	196,615	189,353	27,031	27,157	2,782	42,271	38,096	8,781	5,003	67,310	150,574	143,122	76.6	75.6	46,041	24,057	19,148	21,193
Atlanta & St. Andrews Bay	April	81	390	....	395	365	48	45	4	32	24	7	7	64	171	167	43.4	45.9	224	103	80	73
	4 mos.	81	1,448	....	1,465	1,433	157	163	13	118	102	27	27	268	654	660	44.6	46.1	811	366	292	295
Atlanta & West Point	April	93	252	27	334	342	45	40	7	58	69	14	18	147	291	297	87.1	86.8	43	21	14	3
	4 mos.	93	962	116	1,310	1,362	180	190	26	245	267	58	72	584	1,176	1,212	89.7	88.9	135	82	8	—28
Western of Alabama	April	133	297	25	359	357	60	53	8	63	76	19	20	143	308	307	85.8	86.1	51	40	29	26
	4 mos.	133	1,142	108	1,405	1,474	222	214	34	263	289	75	80	567	1,218	1,228	86.7	83.3	187	146	105	136
Atlantic Coast Line	April	5,292	12,202	1,735	15,041	14,836	2,167	2,465	202	2,844	2,924	655	474	5,485	11,674	11,947	77.6	80.5	3,367	2,150	822	737
	4 mos.	5,292	47,323	7,640	59,553	61,485	8,386	10,214	707	11,361	11,796	2,546	1,929	22,419	46,949	48,627	78.8	79.1	12,604	7,450	3,607	3,773
Charleston & West. Carolina	April	343	658	....	670	618	143	135	12	101	105	28	22	185	467	458	69.8	74.1	202	135	71	68
	4 mos.	343	2,459	....	2,505	2,779	562	598	53	395	439	110	86	742	1,847	1,911	73.7	68.8	658	410	289	393
Baltimore & Ohio	April	6,006	36,262	1,790	40,586	40,336	4,688	4,753	363	7,575	8,410	1,070	1,123	16,284	31,814	31,868	78.4	79.0	8,772	3,846	3,490	4,345
	4 mos.	6,006	139,890	6,231	154,900	152,194	17,166	16,704	1,605	30,046	34,866	4,273	4,188	64,543	123,964	125,851	80.0	82.7	30,936	13,141	12,676	11,935
Staten Island Rapid Transit	April	29	226	66	295	257	60	48	13	38	32	2	2	153	297	249	100.6	97.1	—2	44	—74	—59
	4 mos.	29	808	254	1,080	1,043	229	215	47	149	117	7	7	595	1,135	1,036	105.2	99.3	—56	175	—348	—265
Bangor & Aroostook	April	602	1,646	27	1,712	1,846	339	400	17	273	264	104	34	389	1,125	1,148	65.7	62.2	587	254	360	444
	4 mos.	602	6,860	118	7,143	7,261	1,492	1,475	69	1,109	1,083	417	121	1,876	4,962	4,663	69.5	64.2	2,181	799	1,296	1,597
Bessemer & Lake Erie	April	208	1,971	....	1,997	2,312	261	271	19	736	1,017	141	36	480	1,624	1,910	81.3	82.6	373	385	398	457
	4 mos.	208	6,039	....	6,130	6,612	887	1,248	75	2,709	3,247	556	132	1,732	5,925	6,693	96.7	101.2	205	935	1,087	947
Boston & Maine	April	1,571	5,957	777	7,455	7,532	992	1,006	147	936	990	158	151	3,351	5,853	5,887	78.5	78.2	1,602	422	624	672
	4 mos.	1,571	23,159	3,339	29,682	29,421	3,766	4,194	611	3,938	3,858	767	618	13,685	23,724	23,963	79.9	81.4	5,958	1,796	1,787	1,077
Canadian Pacific Lines in Me.	April	234	708	43	778	795	110	114	16	141	245	17	9	166	447	672	57.5	84.6	330	31	250	37
	4 mos.	234	3,216	190	3,510	3,497	418	478	80	570	563	69	36	1,192	2,302	2,491	65.6	71.2	1,208	126	771	646
Carolina & Northwestern	April	284	304	....	308	341	58	59	7	20	18	11	4	77	168	158	54.5	46.2	140	34	58	94
	4 mos.	284	1,211	....	1,233	1,354	236	250	29	78	72	43	15	312	693	712	56.2	52.6	540	119	216	283
Central of Georgia	April	1,764	3,249	143	3,655	3,763	492	560	46	595	572	160	173	1,424	2,974	2,933	78.6	77.9	781	252	517	524
	4 mos.	1,764	12,905	666	14,676	14,988	2,260	2,238	197	2,547	2,259	648	708	5,801	12,073	11,699	82.3	78.1	2,604	1,028	1,521	2,010
Central of New Jersey	April	612	4,212	557	5,150	5,127	463	677	92	933	907	180	77	2,232	3,924	3,999	76.2	78.0	1,226	500	506	390
	4 mos.	612	16,186	2,043	19,568	20,286	2,025	2,520	372	3,634	3,638	719	389	8,920	15,790	15,972	80.7	78.7	3,777	1,894	922	1,420
Central Vermont	April	383	895	67	1,014	994	284	177	18	99	121	10	18	389	831	728	81.9	73.3	183	51	—61	102
	4 mos.	383	3,392	261	3,922	3,760	711	572	68	491	468	42	69	1,581	3,018	2,855	76.9	75.9	904	199	128	255
Chesapeake & Ohio	April	5,132	34,389	615	37,063	33,838	4,515	3,847	442	6,101	5,586	1,747	836	11,831	24,979	22,891	67.4	67.6	12,084	5,645	6,787	6,163
	4 mos.	5,132	129,204	2,179	138,167	132,084	16,970	14,931	1,731	23,839	22,194	6,909	3,248	46,606	97,175	90,454	70.3	68.5	40,991	19,454	23,691	23,860
Chicago & Eastern Illinois	April	862	2,844	181	3,294	3,108	368	407	29	546	486	144	144	1,209	2,459	2,414	74.6	77.7	835	115	394	323
	4 mos.	862	11,389	807	13,211	12,298	1,514	1,365	113	2,128	1,920	558	558	5,009	10,025	9,431	75.9	76.7	3,186	784	1,394	1,373
Chicago & Illinois Midland	April	121	726	....	742	659	49	64	7	98	92	24	31	153	375	384	50.6	58.3	366	198	166	126
	4 mos.	121	2,685	....	2,748	2,751	153	188	25	403	369	97	124	621	1,472	1,471	53.6	53.5	1,276	662	595	610
Chicago & North Western	April	9,287	15,435	1,470	18,624	18,435	3,085	3,174	400	3,129	3,688	1,002	463	8,108	15,863	16,724	85.2	90.7	2,760	1,301	588	—471
	4 mos.	9,317	58,733	6,048	71,829	71,082	10,739	11,730	1,515	12,186	15,529	3,977	1,854	32,886	61,731	68,521	85.9	96.8	10,098	5,186	1,477	—7,011
Chicago, Burlington & Quincy	April	8,784	17,005	1,596	20,551	19,578	2,861	2,939	384	3,625	3,692	934	592	7,984	16,032	16,095	78.0	82.2	4,519	2,456	1,936	1,534
	4 mos.	8,796	67,589	5,975	81,359	80,712	9,985	9,599	1,492	14,568	14,315	3,716	2,429	32,507	63,337	62,388	77.9	77.3	18,022	9,570	7,769	8,276
Chicago Great Western	April	1,470	3,036	7	3,198	2,851	451	425	43	470	450	125	137	987	2,123	1,940	66.4	68.0	1,075	427	400	370
	4 mos.	1,470	11,656	40	12,302	11,527	1,753	1,701	164	1,857	1,826	498	516	3,839	8,283	7,828	67.3	67.9	4,019	1,556	1,507	1,468
Chic., Milw., St. Paul & Pac.	April	10,615	17,720	1,060	20,932	20,059	3,542	3,441	425	3,911	4,118	855	581	8,220	17,387	17,322	83.1	86.4	3,546	1,572	1,390	773
	4 mos.	10,625	68,136	4,448	80,505	79,257	12,652	12,165	1,680	15,921	17,077	3,421	2,141	33,086	68,443	69,384	85.0	87.5	12,062	6,088	3,842	1,726
Chicago, Rock Is. & Pacific	April	7,592	15,695	1,285	18,427	16,277	2,336	2,067	246	3,005	2,738	592	558	6,670	13,513	12,405	73.3	76.2	4,914	2,094	1,721	1,668
	4 mos.	7,596	56,529	5,436	67,688	63,504	8,219	7,775	944	11,633	11,093	2,372	2,267	26,394	52,262	49,124	77.2	77.4	15,426	6,291	5,491	5,976
Clinchfield	April	293	2,137	....	2,149	2,139	387	235	20	402	352	94	₱59	474	1,386	1,155	64.5	54.0	763	209	716	904
	4 mos.	293	8,069	....	8,109	8,767	1,272	1,106	80	1,653	1,444	389	237	1,892	5,302	4,880	65.4	55.7	2,807	839	2,636	3,508
Colorado & Southern	April	718	1,094	64	1,287	1,301	261	146	17	253	195	₱53	₱41	531	1,155	929	89.8	71.4	132	90	₱24	121
	4 mos.	718	4,423	288	5,246	4,991	674	526	69	914	872	207	141	2,071	4,087	3,766	77.9	75.5	1,159	671	402	388
Ft. Worth & Denver	April	1,362	1,225	142	1,548	1,575	317	268	36	269	269	45	71	714	1,484	1,375	95.9	87.3	64	Cr 52	—17	65
	4 mos.	1,362	5,492	573	6,792	6,764	1,354	950	140	977	1,142	177	283	2,844	5,905	5,509	86.9	81.4	887	62	134	442
Colorado & Wyoming	April	39	249	....	391	338	28	28	1	28	22	11	1	137	210	190	53.6	57.5	161	104	70	58
	4 mos.	39	1,012	....	1,565	1,338	93	95	6	158	130	44	6	559	880	882	56.2	59.9	685	394	274	225
Delaware & Hudson	April	771	4,342	139	4,617	4,801	589	503	54	818	669	169	101	1,607	3,411	3,088	73.9	64.3	1,207	640	699	989
	4 mos.	771	17,995	623	19,177	18,877	2,265	2,027	228	3,122	2,766	717	391	6,477	13,406	12,572	69.9	66.6	5,771	3,205	2,944	3,401
Delaware, Lacka. & Western	April	938	5,548	820	7,130	7,534	810	901	147	1,083	1,044	348	201	3,780	6,276	6,050	88.0	80.3	853	702	—27	907
	4 mos.	950	22,986	3,327	29,148	29,257	3,135	3,175	573	4,244	4,264	1,373	786	15,068	24,838	23,955	85.2	81.9	4,310	2,605	1,051	2,849
Denver & Rio Grande Western	April	2,155	6,720	217	7,128	6,242	960	880	90	1,091	974	292	231	1,982	4,556	4,217	63.9	67.6	2,572	1,285	1,323	1,086
	4 mos.	2,155	25,657	867	27,286	25,080	2,859	2,693	384	4,227	3,836	1,168	903	8,078	17,217	16,164	63.1	64.5	10,069	4,985	5,252	4,581
Detroit & Toledo Shore Line	April	50	576	....	618	670	83	79	3	79	68	24	20	214	414	390	67.0	58.2	204	74	37	73
	4 mos.	50	2,800	....	3,010	3,119	327	331	13	327	281	94	80	962	1,763	1,664	58.6	53.4	1,247	452	290	385
Detroit, Toledo & Ironton	April	464	1,842	....	1,901	1,748	289	318	21	395	362	104	54	508	1,349	1,248	71.0	71.4	552	245	303	257
	4 mos.	464	7,604	....	7,859	7,382	1,105	1,147	102	1,778	1,407	405	218	2,015	5,517	4,947	70.2	67.0	2,342	1,036	1,220	1,265
Duluth, Missabe & Iron Range	April	565	3,082	1	3,598	4,474	511	425	121	751	668	134	11	1,524	2,963	2,774	82.3	62.0	635	315	323	1,337
	4 mos.	566	4,312	4	5,155	5,842	1,979	1,753	383	3,362	2,903	537	44	3,666	9,760	8,723	189.3	149.3	—4,686	705	—5,133	—3,554
Duluth, So. Shore & Atlantic	April	544	603	3	637	634	143	114	10	149	158	25	12	231	578	548	90.7	86.5	59	37	—6	16
	4 mos.	544	2,337	15	2,459	2,626	487	465	40	634	539	99	125	954	2,302	2,109	93.6	80.3	157	142	—76	298
Duluth, Winnipeg & Pacific	April	175	295	....	298	499	50	73	4	44	72	2	7	117	227	399	76.2	79.9	71	26	—39	—35
	4 mos.	175	2,418	3	2,439	2,529	231	255	18	248	321	8	27	765	1,309	1,689	53.7	66.8	1,130	169	529	239

a RAILWAY AGE Workbook Page

WAUKESHA

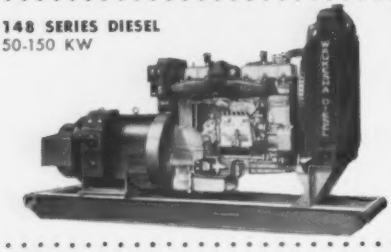


145 SERIES—45-110 KW
Gas, gasoline

Industrial ENGINATORS®

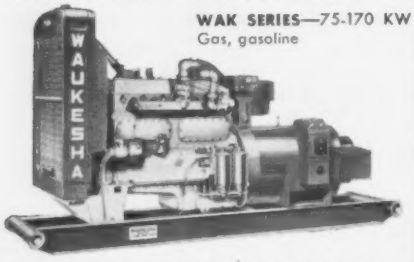
50-800 KW

NATURAL GAS • LPG • GASOLINE • DIESEL

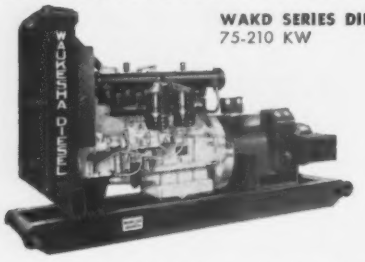


148 SERIES DIESEL
50-150 KW

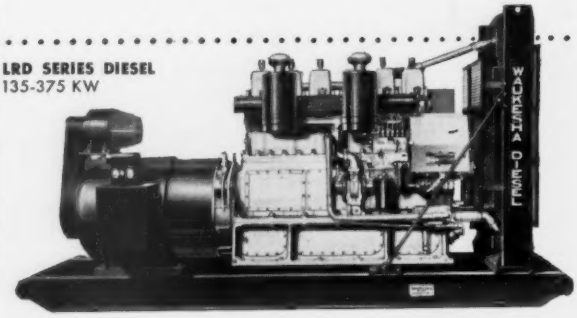
• Who builds these Waukesha Enginators? The same engineering organization who, ever since 1935, have made the Waukesha engine-driven railway equipment that supplies air conditioning and all electrical needs, and is now used by over 40 American railroads and the Pullman Co. For reliable performance on all fuels, these accurately balanced Waukesha engine-generator combinations supply smooth, steady power in continuous, intermittent and standby service.



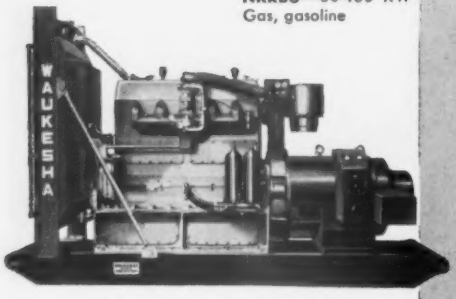
WAK SERIES—75-170 KW
Gas, gasoline



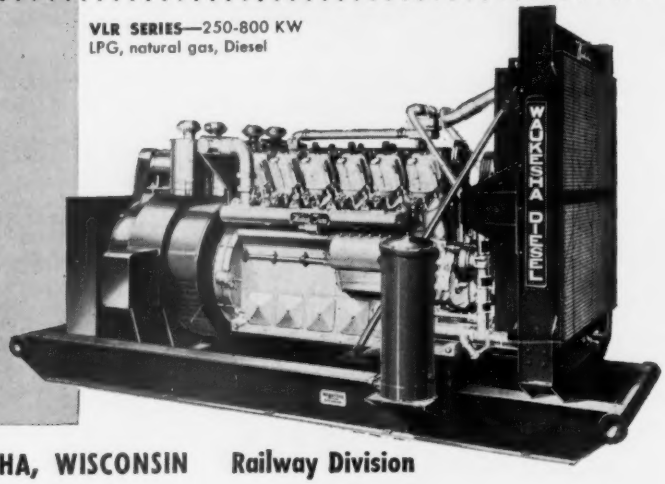
WAKD SERIES DIESEL
75-210 KW



LRD SERIES DIESEL
135-375 KW



NKRBU—80-180 KW
Gas, gasoline

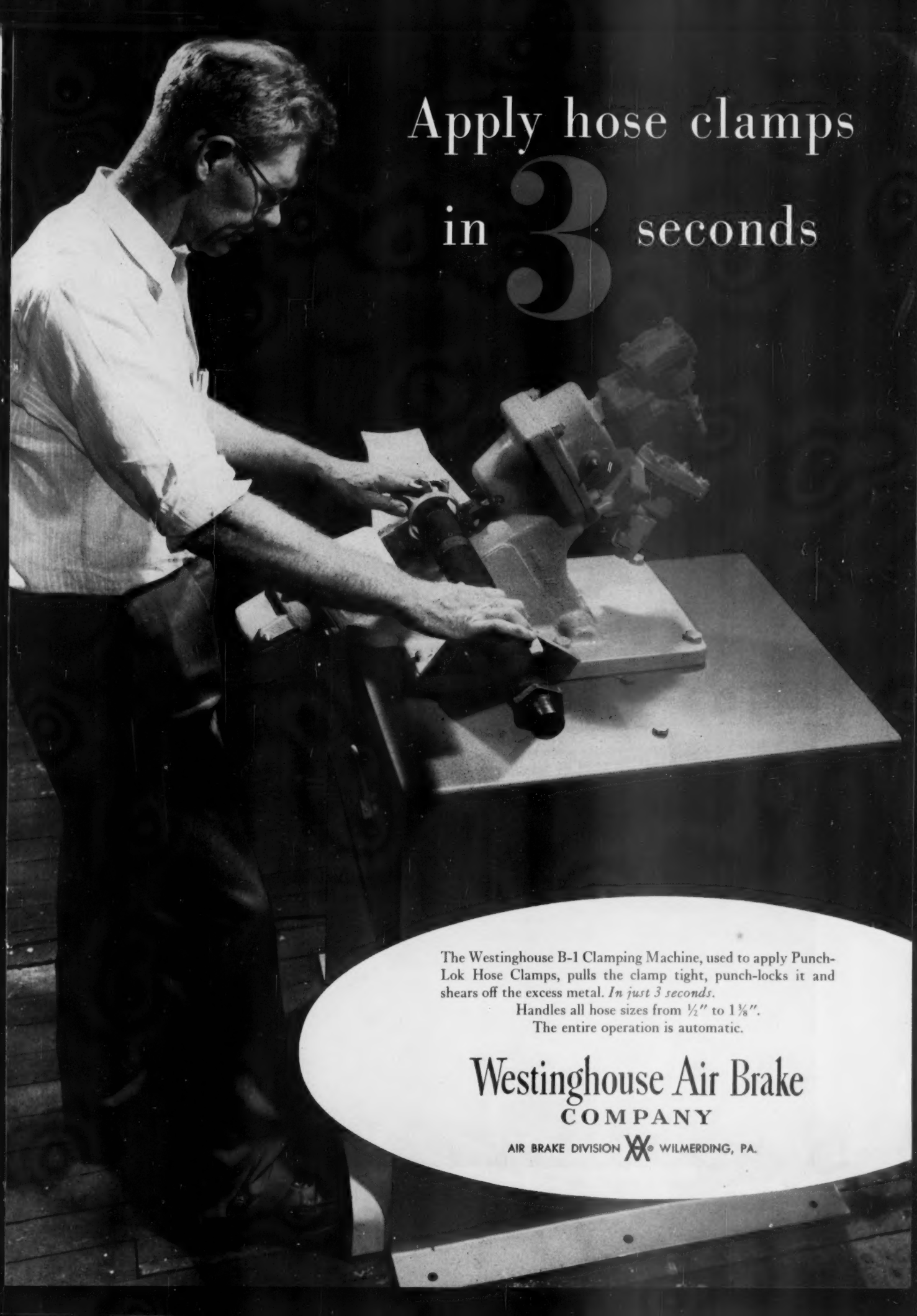


VLR SERIES—250-800 KW
LPG, natural gas, Diesel

WRITE for bulletins for these and other models

335-R

WAUKESHA MOTOR COMPANY, WAUKESHA, WISCONSIN Railway Division



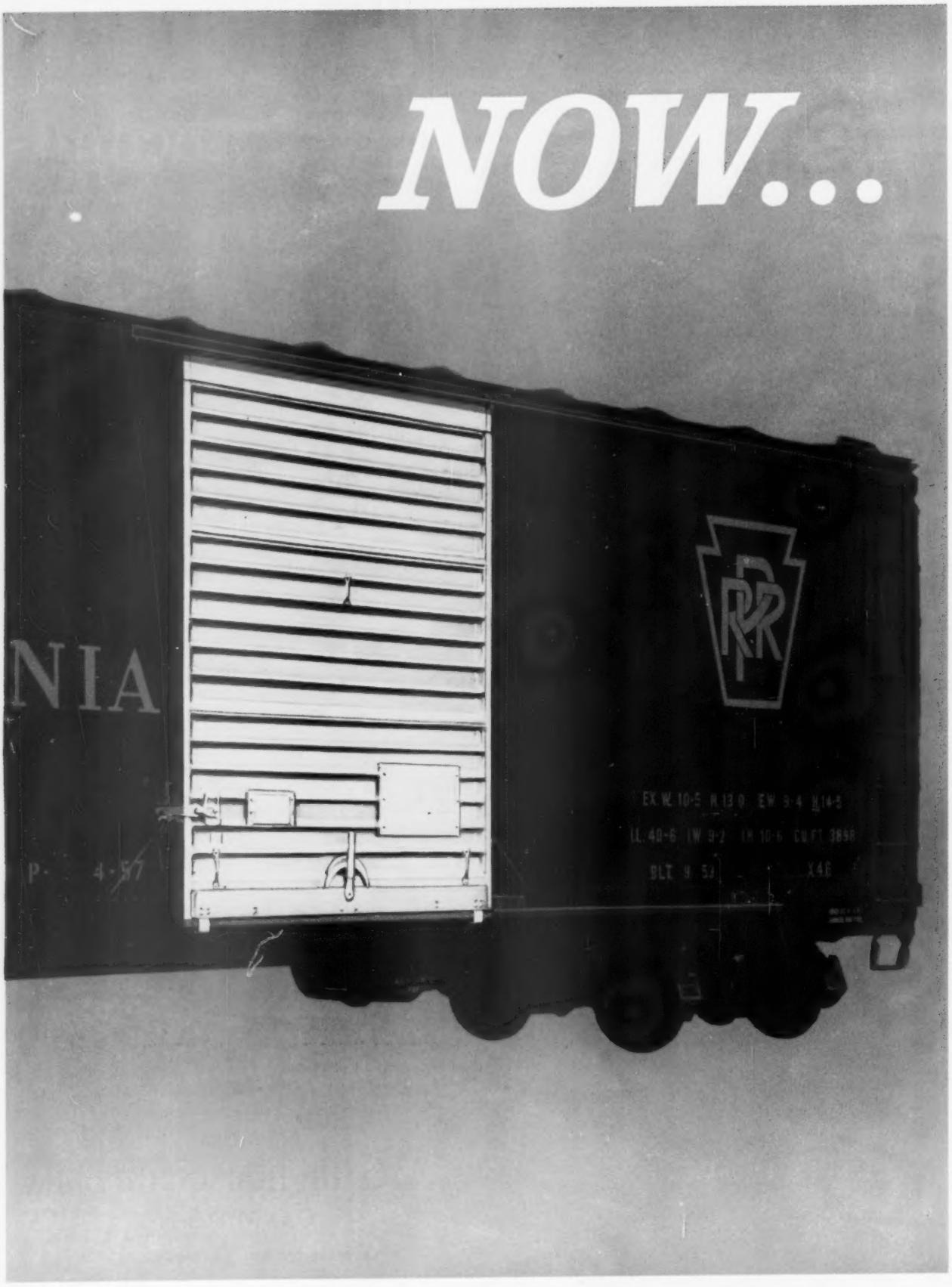
The Westinghouse B-1 Clamping Machine, used to apply Punch-Lok Hose Clamps, pulls the clamp tight, punch-locks it and shears off the excess metal. *In just 3 seconds.*

Handles all hose sizes from ½" to 1⅜".

The entire operation is automatic.

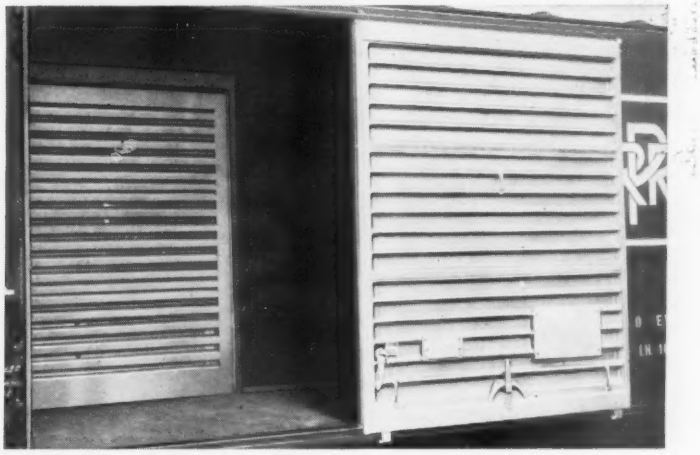
Westinghouse Air Brake
COMPANY

AIR BRAKE DIVISION WILMERDING, PA.


NOW...
NIA
PRR

welded aluminum box car doors less than half the weight of steel

Only 256 Pounds in Kaiser Aluminum—Compared to 523 Pounds in Steel!*



The first welded aluminum box car doors to be produced in the United States have now been put into test service on the Pennsylvania Railroad.

These rugged, lightweight doors, designed for PRR by Kaiser Aluminum, offer advantages that are increasingly important in view of the present trend toward larger box car door openings:

Exceptional Weight Advantage. As doors become wider, added weight in steel creates greater problems in door handling. The answer?—*lightweight aluminum* . . . to simplify mounting . . . to assure easy operation.

Strong and Rugged. Strength is achieved through a unique combination of specially designed aluminum extruded door stiles and formed aluminum panels. High strength welded construction is made possible by a new sheet and plate aluminum alloy 5086, an unusually strong, non-heat treatable, easily weldable alloy developed by Kaiser Aluminum.

Permanently Rust Proof. Aluminum cannot rust—eliminates costly maintenance of lower panels. Its remarkable corrosion resistance eliminates need for painting.

A Kaiser Aluminum "Partnership Project"

This is another example of how Kaiser Aluminum is working together with the Railroad Industry on new developments.

We will be pleased to work *with you* as "idea partners" for further development of both new and existing aluminum applications, sharing with you our aluminum fabricating knowledge, engineering skill, cost analysis, design assistance.

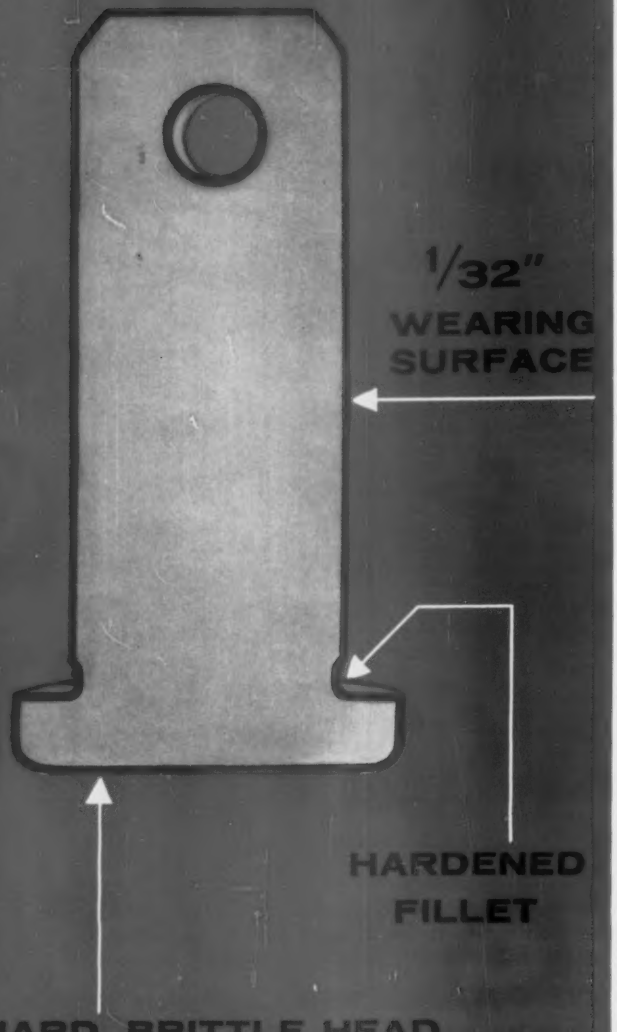
Call the Kaiser Aluminum sales office listed in your telephone directory. Kaiser Aluminum & Chemical Sales, Inc., *Railroad Sales Dept.*, Palmolive Bldg., 919 N. Michigan Ave., Chicago 11, Illinois; *Executive Office*, Kaiser Bldg., Oakland 12, California.

*8-foot door

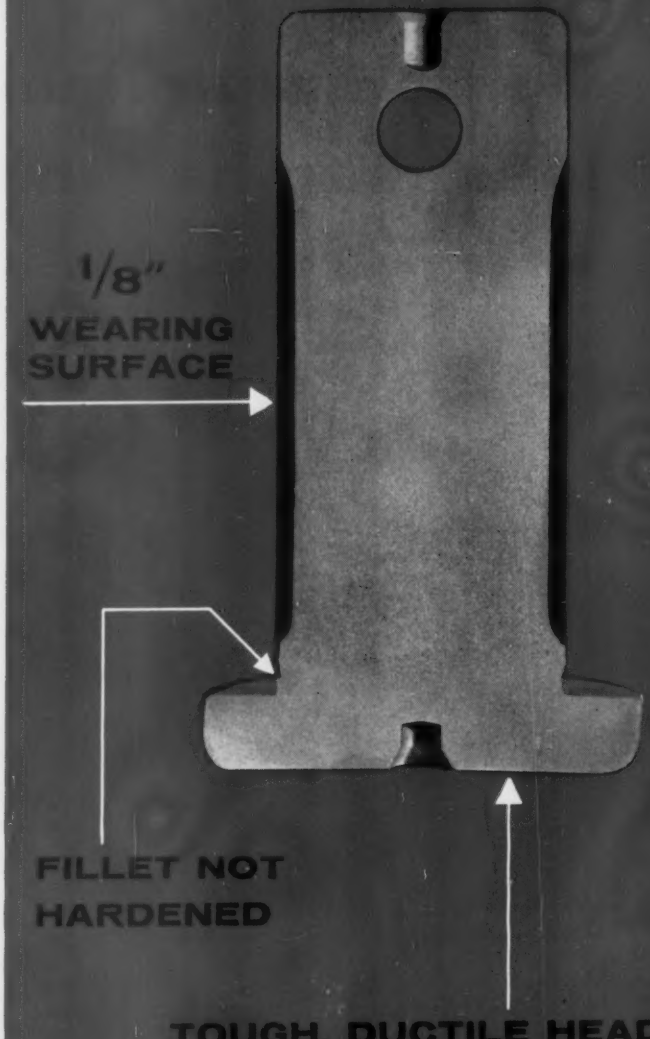
Kaiser Aluminum

THE BRIGHT STAR OF METALS

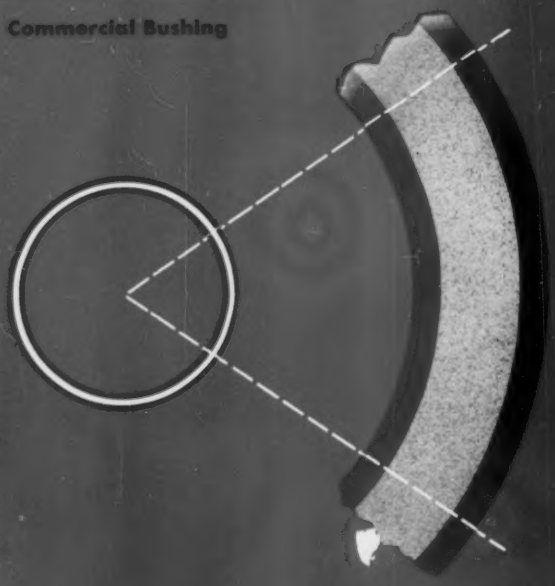
COMMERCIAL QUALITY



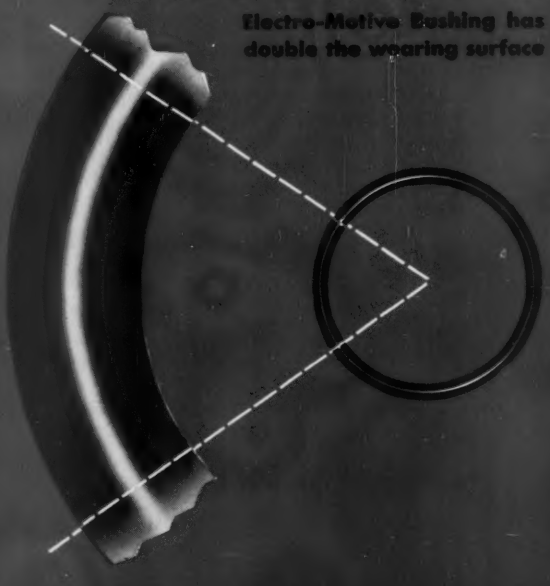
ELECTRO-MOTIVE QUALITY



Commercial Bushing



Electro-Motive Bushing has double the wearing surface



Longer lasting . . . cost no more!

Why Electro-Motive Pins and Bushings cut replacements costs

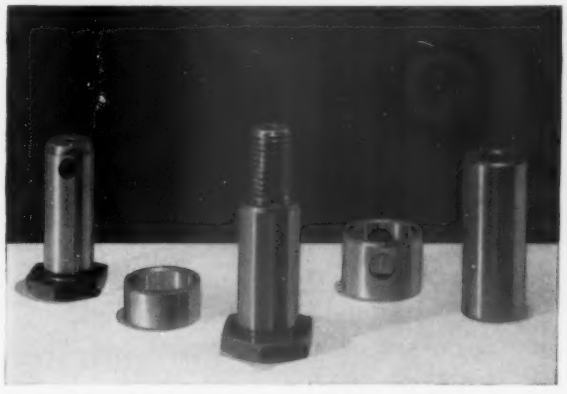
Compare the photographs at left and you will see why Electro-Motive Pins and Bushings—on depth of wearing surface alone —will give you much longer service life.

Note on the Electro-Motive Pin the wear-resistant surface runs only on the shank. This is purposely done because a pin must perform two functions: provide a bearing surface for the bushing and withstand severe shocks both from installation and service.

Thus, on the Electro-Motive Pin, the shank has a hard, deep bearing area while the head and threads are left ductile for better shock absorbing qualities, longer life.

Make a comparison in your own shops. Ask your Electro-Motive representative for a sampling of EMD Pins and Bushings for inspection and testing. You will see why the special hardening process employed in the manufacture of these parts brings extra service and savings at no extra cost.

Induction hardening makes the difference. In the induction hardening process, pins are passed through a high amperage electric induction coil which quickly heats them to optimum temperature. Water spray quickly quenches to eliminate distortion and scale.



Fast delivery from nine on-line warehouses. All nine of our warehouses carry stock of these pins and bushings in both current and fast-moving classifications.

La Grange, Illinois
Jacksonville, Fla.
Minneapolis, Minn.
North Salt Lake City, Utah
Los Angeles, Calif.
Halethorpe, Md.
Robertson, Mo.
Ft. Worth, Texas
Emeryville, Calif.

ELECTRO-MOTIVE DIVISION
GENERAL MOTORS
LA GRANGE, ILLINOIS
HOME OF THE DIESEL LOCOMOTIVE
In Canada: General Motors Diesel, Ltd., London, Ontario

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF APRIL AND FOUR MONTHS OF CALENDAR YEAR 1957

Name of Road	Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1957	Total (inc. misc.) 1956	Operating Expenses: Maint. Way and Structures: Total 1957	Total 1956	Deprec. and Retirements	Maint. Equipment: Total 1957	Total 1956	Deprec. and Retirements	Traffic	Transportation	Total 1957	Total 1956	Operating ratio 1957	Operating ratio 1956	Net from railway operation	Railway tax accruals	Net Railway operating income 1957	Net Railway operating income 1956
Elgin, Joliet & Eastern	April	4,055	....	4,940	4,702	401	313	19	1,132	830	125	51	1,702	3,548	3,127	71.8	66.5	1,391	683	383	383
	4 mos.	16,299	....	19,880	18,798	1,275	1,081	100	3,506	3,386	471	171	7,300	13,189	12,431	66.3	66.1	6,691	2,616	1,666	1,565
Erie	April	12,592	573	14,071	14,770	2,048	1,814	224	2,327	2,179	542	417	6,574	12,166	11,414	86.5	77.3	1,906	566	724	1,329
	4 mos.	51,546	2,383	57,681	56,949	6,286	5,736	891	9,247	8,690	2,166	1,659	26,259	46,657	44,142	80.9	77.5	11,023	4,134	3,931	4,943
Florida East Coast	April	2,910	631	3,819	3,901	557	489	43	651	730	107	96	1,402	2,897	2,839	75.9	72.8	922	239	340	442
	4 mos.	11,970	2,770	15,994	15,177	2,318	1,983	180	2,751	2,886	412	372	5,716	11,946	10,921	74.7	72.0	4,048	1,116	1,562	1,915
Georgia Railroad	April	607	19	712	727	130	129	19	132	135	33	42	310	653	641	91.6	88.2	60	40	67	81
	4 mos.	2,399	76	2,815	3,016	501	519	40	576	553	135	164	1,225	2,620	2,614	93.1	86.7	195	164	210	362
Georgia & Florida	April	284	....	291	297	95	90	4	37	38	9	23	85	257	251	88.2	84.5	34	17	—5	9
	4 mos.	1,104	....	1,130	1,238	305	362	47	165	151	38	91	369	1,001	1,015	88.6	82.0	129	68	—24	63
Grand Trunk Western	April	4,690	216	5,273	5,228	692	678	55	948	918	93	91	2,482	4,437	4,491	84.1	85.9	836	389	—107	—271
	4 mos.	18,578	881	21,069	21,421	9,631	2,498	247	3,716	3,771	372	349	10,269	17,861	17,911	84.8	83.6	3,208	1,557	—461	—204
Great Northern	April	20,168	733	22,265	22,284	3,987	4,341	375	4,226	4,166	769	623	7,938	17,760	17,593	79.8	78.9	4,505	2,298	1,672	2,565
	4 mos.	72,244	2,853	79,811	78,038	13,596	14,006	1,497	16,295	16,572	3,063	2,241	29,994	65,961	65,499	82.6	83.9	13,850	7,815	4,774	4,384
Green Bay & Western	April	384	....	390	388	71	84	4	48	48	9	24	119	284	274	73.0	74.6	106	56	31	17
	4 mos.	1,519	....	1,561	1,484	223	277	17	222	188	37	95	465	1,091	1,083	69.9	73.0	470	224	126	104
Gulf, Mobile & Ohio	April	6,352	315	7,149	7,108	1,173	998	82	1,438	1,400	283	302	2,365	5,678	5,209	79.4	73.3	1,471	653	481	644
	4 mos.	25,161	1,283	28,311	27,664	4,427	3,988	328	5,810	5,201	1,130	1,195	9,548	22,548	20,577	79.6	74.4	5,763	2,272	1,678	2,485
Illinois Central	April	20,019	1,768	24,009	24,318	3,944	3,790	384	4,719	4,003	867	623	8,849	19,247	18,079	80.2	74.3	4,763	2,445	1,473	2,280
	4 mos.	81,195	7,313	97,288	97,253	15,309	14,666	1,532	18,340	16,617	3,415	2,520	36,166	76,819	73,408	79.0	75.5	20,469	10,462	6,716	8,718
Illinois Terminal	April	911	27	1,086	1,065	134	133	26	232	189	40	50	379	860	801	79.2	75.2	226	97	52	116
	4 mos.	3,469	107	4,102	4,171	520	509	81	828	795	159	198	1,506	3,300	3,298	80.4	79.1	802	355	210	344
Kansas City Southern	April	3,385	102	3,776	4,010	315	396	47	497	460	107	107	1,151	2,203	2,241	58.3	55.8	1,573	629	666	678
	4 mos.	14,093	364	15,771	15,749	1,271	1,413	184	1,954	1,919	402	398	4,639	8,800	8,937	55.8	56.7	6,971	3,025	2,755	2,657
Kansas, Oklahoma & Gulf	April	463	....	464	487	52	83	7	31	32	11	32	98	242	275	52.1	56.5	222	99	89	82
	4 mos.	1,717	....	1,721	1,859	296	287	29	127	119	45	129	368	1,027	1,049	59.7	56.4	694	301	236	349
Lake Superior & Ishpeming	April	205	....	298	473	51	48	8	80	90	18	2	87	231	465	77.6	55.9	67	41	80	195
	4 mos.	439	....	548	670	192	173	31	336	318	71	8	257	866	818	157.9	122.8	—317	165	—386	212
Lehigh & Hudson River	April	311	....	311	275	36	38	2	41	35	8	17	109	215	200	69.0	72.8	96	39	14	9
	4 mos.	1,159	....	1,160	1,067	143	140	10	156	138	33	70	417	841	785	72.6	73.5	318	130	38	42
Lehigh & New England	April	646	....	653	692	74	73	6	181	193	44	22	222	545	540	83.5	78.0	108	43	200	230
	4 mos.	2,256	....	2,277	2,366	331	271	29	733	775	176	87	859	2,200	2,098	96.6	88.7	77	152	529	569
Lehigh Valley	April	4,934	290	5,521	6,125	702	756	105	1,162	991	212	155	2,705	4,972	4,847	90.1	79.1	549	468	—121	698
	4 mos.	20,232	1,112	22,543	23,236	2,791	2,855	398	4,522	3,943	858	604	10,898	19,834	19,085	88.0	82.1	2,709	1,850	—52	1,903
Litchfield & Madison	April	277	...	281	318	11	10	1	25	25	7	43	61	162	158	57.7	49.7	119	44	30	50
	4 mos.	1,202	....	1,220	1,313	42	44	3	99	100	27	176	241	644	651	52.8	49.6	576	228	162	204
Long Island	April	1,262	4,328	5,779	5,560	818	774	93	1,073	1,059	167	2	2,698	4,802	4,719	83.1	84.9	977	336	366	269
	4 mos.	4,752	15,971	21,455	20,663	3,165	3,223	365	4,248	4,378	667	191	10,911	19,157	19,222	89.3	93.0	2,298	1,372	—47	—899
Louisiana & Arkansas	April	1,957	49	2,138	2,274	224	211	19	335	298	98	76	657	1,369	1,330	64.0	58.5	769	342	313	470
	4 mos.	8,246	202	8,948	9,207	885	862	79	1,262	1,163	391	316	2,680	5,465	5,328	61.1	57.9	3,484	1,568	1,383	1,843
Louisville & Nashville	April	16,610	728	18,579	17,370	2,703	2,496	228	4,514	3,596	1,043	419	6,632	15,043	13,432	81.0	77.3	3,536	2,627	2,269	2,257
	4 mos.	62,567	3,120	70,529	69,632	11,023	9,694	936	16,364	14,393	4,104	1,630	26,196	58,197	54,185	82.5	77.8	12,332	9,218	8,299	9,286
Maine Central	April	2,168	74	2,384	2,432	427	414	27	420	382	80	26	815	1,805	1,746	75.7	71.8	579	268	230	265
	4 mos.	9,365	335	10,277	9,602	1,716	1,615	112	1,696	1,540	321	102	3,566	7,553	7,087	73.5	73.8	2,724	1,208	1,015	994
Minneapolis & St. Louis	April	2,095	3	2,167	1,823	312	246	55	388	304	77	114	687	1,524	1,354	70.3	74.3	643	352	195	188
	4 mos.	7,438	9	7,704	6,895	1,091	990	144	1,132	1,145	312	425	2,655	5,836	5,501	75.8	79.8	1,867	1,104	544	522
Minn., Northfield & Southn.	April	436	....	454	384	42	20	2	39	34	11	27	85	221	193	48.8	50.1	233	123	91	81
	4 mos.	1,604	....	1,668	1,441	102	65	9	142	135	43	105	341	808	735	48.4	51.0	860	442	349	298
Minn., St. Paul & S. S. Marie	April	3,756	43	3,974	3,373	726	712	45	784	690	131	98	1,381	3,148	2,914	79.2	86.4	826	462	347	103
	4 mos.	13,378	181	14,232	13,623	2,466	2,503	182	2,989	2,721	544	393	5,459	11,868	11,562	83.4	84.9	2,364	1,244	827	722
Missouri-Illinois	April	526	....	528	549	49	58	4	81	53	30	12	117	271	250	51.3	45.6	257	142	131	150
	4 mos.	1,802	....	1,814	1,686	198	244	17	352	315	121	47	464	1,100	1,064	60.6	63.1	714	420	377	353
Missouri-Kansas-Texas Lines	April	4,910	178	5,627	6,105	990	928	92	901	1,038	267	227	2,074	4,460	4,926	79.3	80.7	1,167	397	321	383
	4 mos.	20,310	802	23,254	24,321	3,964	3,313	368	4,036	3,788	1,041	938	9,060	19,218	19,204	82.6	79.0	4,036	1,719	554	1,834
Missouri Pacific	April	22,179	857	25,372	25,290	4,324	4,003	367	4,738	4,343	1,023	694	9,061	19,799	18,972	78.0	75.0	5,574	1,669	2,984	3,322
	4 mos.	87,180	3,522	99,686	99,586	15,275	14,787	1,307	18,314	17,610	4,085	2,830	36,668	77,012	75,531	77.3	75.8	22,674	7,136	11,897	12,706
Monon	April	1,709	62	1,925	1,957	234	335	21	315	291	75	106	765	1,539	1,550	80.0	79.2	386	118	172	146
	4 mos.	6,943	264	7,481	7,631	1,069	1,309	78	1,204	1,153	298	428	2,978	6,171	6,194	82.5	81.2	1,310	457	421	491
Monongahela	April	586	....	588	647	80	75	16	65	53	11	1	212	369	352	62.7	54.4	219	31	43	135
	4 mos.	2,193	....	2,203	2,206	312	272	66	244	218	46	4	831	1,442	1,317	65.4	59.7	761	122	35	362
Nashville, Chatt. & St. Louis	April	2,557	91	2,978	3,074	484	532	47	491	455	137	128	1,156	2,286	2,419	76.8	78.7	692	446	234	247
	4 mos.	9,389	436	11,162	12,265	1,818	1,984	189	1,642	1,732	549	483	4,686	9,140	9,418	81.9	76.8	2,022	1,284	755	1,251
New York Central	April	49,424	7,287	64,309	66,952	7,275	7,212	1,374	11,294	11,668	2,268	1,158	29,652	53,080	53,454	82.5	79.8	11,229	5,622	4,063	6,853
	4 mos.	195,287	29,482	254,861	261,694	24,888	25,397	4,644	45,563	44,717	9,137	4,798	120,987	210,726	209,912	82.7	80.2	44,134	23,078	15,002	20,514
Pittsburgh & Lake Erie	April	3,523	52	3,785	3,832	618	428	142	1,093	919	267	79	1,364	3,394	2,952	89.7	77.0	390	672	744	1,057
	4 mos.	14,167	228	15,200	14,410	2,258	1,782	491	4,141	3,728	1,005	336	5,449	13,075	11,843	86.0	82.2	2,124	3,127	3,138	3,736
New York, Chicago & St. Louis	April	13,856	148	14,414	14,414	1,818	1,845	152	2,507	2,363	389	390	5,395	10,613	10,194	73.6	70.7	3,801	1,734	1,457	1,715
	4 mos.	55,647	652	57,896	57,734	6,323	6,394	654	9,720	9,401	1,652	1,489	21,553	41,089	39,867	71.0	69.1	16,806	7,830	6,552	7,292
New York, New Haven & Htfd.	April	8,101	4,420	14,142	13,892	1,663	1,610	276	2,394	2,084	477	245	6,160	11,496	10,864	80.7	78.2	2,736	1,000	287	657
	4 mos.	30,785	17,725	54,952	52,544	6,337	6,195	1,073	8,782	9,543	1,887	927	24,894	44,584	45,289	81.1	86.2	10,368	4,010	887	—2,153
New York Connecting	April	283	....	304	378	91	76	25	19	15	....	....	87	202	183	66.4	48.2	102	91	—6	102
	4 mos.	1,269	....	1,372	1,561	351	284	101	74	44	....	....	354	793	699	57.8	44.7	579	373	162	494
New York, Ontario & Western	April	Discontinued operations March 29, 1957.																			
	4 mos.																				
New York, Susque. & Western	April	120	396	45	458	468	48	56	6	56	57	13	9	212	358	356	78.1	76.0	100	35	22	36
	4 mos.	120	1,515	182	1,767	1,793	191	220	23	243	236	50	38	848	1,451	1,440	82.1	80.3	316	140	—5	94

(Statistics continued on page 42)

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REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF APRIL AND FOUR MONTHS OF CALENDAR YEAR 1957

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1957	Total (inc. misc.) 1956	Operating Expenses: Total 1957	Maint. Way and Structures: Total 1956	Deprec. and Retirements	Maint. Equipment: Total 1957	Total 1956	Deprec. and Retirements	Traffic	Transportation	Total 1957	Total 1956	Operating ratio 1957	Operating ratio 1956	Net from railway operation	Railway tax accruals	Net Railway operating income 1957	Net Railway operating income 1956
Norfolk and Western	April	2,132	20,719	251	21,979	19,881	2,719	2,606	324	4,427	4,238	893	386	6,189	14,658	13,783	66.7	69.3	7,321	4,612	3,659	3,208
	4 mos.	2,132	78,383	1,022	83,459	76,944	11,344	10,267	1,279	17,566	16,970	3,457	1,524	24,823	58,565	54,982	70.2	71.5	24,886	15,880	12,828	11,449
Norfolk Southern	April	604	1,018	....	1,036	913	219	197	22	134	125	31	53	287	765	717	73.8	78.5	271	144	88	57
	4 mos.	604	3,692	....	3,700	3,455	778	750	62	598	475	125	211	1,133	2,875	2,734	77.7	79.1	825	422	304	219
Northern Pacific	April	6,832	13,312	426	14,713	14,687	2,467	2,257	289	2,891	2,901	654	440	6,138	12,803	12,486	87.0	85.0	1,910	1,397	872	1,040
	4 mos.	6,832	51,991	1,886	57,683	57,588	7,623	7,589	1,141	11,445	11,971	2,570	1,653	24,327	48,827	48,908	84.6	84.9	8,856	6,121	3,809	3,467
Northwestern Pacific	April	329	1,083	2	1,092	1,323	279	252	17	93	109	3	6	326	732	787	67.1	59.5	360	74	125	141
	4 mos.	329	3,731	5	3,770	3,617	1,016	675	68	384	364	14	30	1,242	2,774	2,378	73.6	65.8	996	256	116	162
Pennsylvania	April	9,961	65,166	10,505	84,182	85,342	9,235	8,618	1,460	17,320	17,720	3,031	1,435	37,736	70,033	68,711	83.2	80.5	14,149	5,757	5,260	7,570
	4 mos.	9,961	256,477	42,835	331,654	323,119	36,204	33,441	5,825	68,431	65,880	12,123	5,724	150,541	278,730	266,885	84.0	82.6	52,924	23,043	17,392	21,515
Penn.-Read. Seashore Lines	April	358	650	90	763	828	251	215	25	113	125	27	11	483	904	865	118.5	104.5	—141	95	—413	—290
	4 mos.	358	2,552	320	2,959	2,919	869	828	103	476	477	107	41	1,994	3,589	3,449	120.3	118.2	—690	380	—1,656	—1,464
Piedmont & Northern	April	126	438	....	447	468	47	47	5	34	29	9	29	80	221	215	49.5	45.9	226	112	67	84
	4 mos.	126	1,907	....	1,944	2,017	174	178	18	126	121	38	116	326	872	872	44.9	43.2	1,071	531	341	380
Pittsburgh & West Virginia	April	132	823	....	829	807	113	107	25	146	134	43	83	215	617	570	74.5	70.6	211	98	129	122
	4 mos.	132	3,357	....	3,378	3,089	453	416	99	598	545	171	319	851	2,446	2,285	72.4	74.0	932	450	556	411
Reading	April	1,304	10,558	617	11,887	11,553	1,505	1,389	198	2,284	2,158	487	213	4,623	9,147	8,524	76.9	73.8	2,741	1,162	1,423	1,267
	4 mos.	1,304	42,425	2,415	47,913	46,389	5,773	5,495	767	9,113	8,534	1,933	787	19,235	36,899	34,890	77.0	75.2	11,013	4,155	5,331	4,994
Richmond, Fred. & Potomac	April	118	1,531	542	2,366	2,440	234	230	26	325	313	67	31	788	1,529	1,492	64.6	61.1	838	452	289	353
	4 mos.	118	6,160	2,236	9,676	9,615	912	924	104	1,333	1,266	269	119	3,175	6,149	6,009	63.6	62.4	3,527	1,862	1,215	1,269
Rutland	April	391	464	....	487	460	99	79	10	59	50	16	34	159	372	343	76.4	74.4	115	28	70	70
	4 mos.	391	1,746	....	1,839	1,742	344	350	32	237	207	65	123	659	1,488	1,398	80.9	80.3	352	114	178	134
Sacramento Northern	April	349	178	....	186	162	47	83	—13	12	11	5	3	62	145	177	78.2	108.9	40	18	6	—50
	4 mos.	349	648	1	680	650	235	346	—3	63	55	23	10	263	645	741	94.9	114.0	35	71	—89	—212
St. Louis-San Francisco	April	4,608	8,711	295	9,687	10,272	1,273	1,499	161	1,727	1,733	569	381	3,949	7,949	8,044	82.1	78.3	1,738	764	887	1,055
	4 mos.	4,609	34,745	1,356	38,926	40,375	5,698	6,059	634	6,590	6,825	2,281	1,596	15,839	32,254	32,121	82.9	79.6	6,672	3,045	3,233	3,919
St. Louis-San Fran. & Texas	April	155	344	3	367	374	40	36	4	34	35	1	25	162	272	259	74.1	69.3	95	24	8	14
	4 mos.	155	1,494	12	1,599	1,528	168	172	18	127	141	5	108	638	1,089	1,071	68.1	70.1	510	167	103	75
St. Louis Southwestern Lines	April	1,560	5,349	8	5,465	5,789	683	713	66	729	663	154	200	1,635	3,444	3,519	63.0	60.8	2,022	797	914	930
	4 mos.	1,560	21,767	50	22,249	23,327	2,970	2,835	282	3,039	2,636	603	807	6,742	14,303	14,958	64.3	64.3	6,703	3,449	3,249	3,901
Savannah & Atlanta	April	144	330	....	349	342	60	59	2	62	46	19	16	104	254	220	72.8	64.2	95	22	57	55
	4 mos.	144	1,255	....	1,325	1,324	249	214	6	213	176	77	67	394	971	887	73.3	64.7	354	89	215	210
Seaboard Air Line	April	4,062	12,185	1,288	14,493	14,347	2,167	2,117	203	2,663	2,662	622	416	4,876	10,798	10,323	74.5	72.0	3,696	1,504	1,852	2,020
	4 mos.	4,062	49,180	5,187	58,523	57,908	8,495	8,560	822	10,383	10,256	2,496	1,661	19,698	42,808	41,350	73.1	71.5	15,715	6,390	7,869	8,489
Southern Railway	April	6,281	19,459	1,079	22,107	23,087	3,082	3,063	352	3,973	4,201	999	475	7,029	15,893	15,879	71.5	68.8	6,304	2,487	3,350	3,942
	4 mos.	6,281	80,080	4,470	90,991	93,647	11,906	12,066	1,165	16,126	16,387	3,778	1,932	28,367	63,194	62,981	69.5	67.3	27,797	12,156	13,753	15,453
Alabama Great Southern	April	328	1,309	47	1,478	1,479	231	322	33	335	309	93	39	487	1,293	1,230	81.4	83.2	276	193	168	169
	4 mos.	328	5,450	191	6,120	6,068	1,031	1,023	132	1,159	1,233	261	163	1,961	4,758	4,684	77.7	77.2	1,363	597	782	732
Cinn., N. Orleans & Tex. Pac.	April	337	3,353	115	3,669	3,845	591	547	65	663	614	199	84	904	2,443	2,248	66.6	58.5	1,226	623	679	806
	4 mos.	337	13,296	491	14,575	14,670	2,270	2,318	270	2,583	2,538	768	330	3,588	9,565	9,390	65.6	64.0	5,010	2,597	2,862	2,793
Georgia Southern & Florida	April	475	734	51	827	932	198	226	11	76	75	12	30	291	656	646	79.4	69.3	171	43	—49	85
	4 mos.	475	2,921	233	3,442	3,641	786	962	43	326	331	50	120	1,116	2,595	2,687	75.4	73.8	847	168	19	149
New Orleans & Northeastern	April	204	933	33	1,036	1,127	289	70	19	171	152	61	23	239	716	549	69.1	48.7	329	183	123	223
	4 mos.	204	3,397	134	3,806	4,081	766	612	82	645	583	218	98	965	2,770	2,434	72.8	59.9	1,036	638	359	693
Southern Pacific	April	8,094	38,319	2,210	42,720	43,070	5,457	5,404	454	9,933	9,467	2,277	871	16,590	35,038	35,193	82.1	81.7	7,632	3,312	3,730	3,591
	4 mos.	8,095	147,088	9,333	165,567	169,115	20,876	21,213	1,876	37,019	35,651	8,699	3,437	65,629	135,757	137,186	82.0	81.1	29,809	13,461	14,491	14,670
Texas & New Orleans	April	4,297	10,136	339	11,179	11,914	2,035	2,131	139	1,545	1,701	178	272	4,178	8,665	8,927	77.5	74.9	2,513	875	516	716
	3 mos.	4,297	42,299	1,355	46,398	46,689	7,904	8,579	531	6,107	6,830	714	1,094	16,836	34,455	35,584	74.3	76.2	11,943	4,463	2,800	2,799
Spokane International	April	150	353	....	368	349	74	79	2	30	28	10	7	83	211	205	57.3	58.7	157	59	71	63
	4 mos.	150	1,240	....	1,281	1,217	246	239	10	121	114	30	26	298	748	741	58.4	60.8	532	187	234	215
Spokane, Portland & Seattle	April	945	2,585	57	2,798	2,849	464	397	50	441	433	114	33	1,011	2,067	1,859	73.9	65.3	740	246	356	658
	4 mos.	945	9,380	278	10,324	10,452	1,512	1,460	225	1,737	1,695	455	138	3,824	7,704	7,473	74.6	71.5	2,620	927	1,126	1,608
Tennessee Central	April	286	314	1	324	437	77	78	5	63	66	22	18	118	306	305	94.4	69.7	18	25	—42	70
	4 mos.	286	1,470	3	1,513	1,830	301	325	20	264	291	89	71	492	1,241	1,320	82.0	72.1	272	99	3	297
Texas & Pacific	April	1,831	5,744	323	6,623	6,712	1,049	1,026	107	1,126	993	260	219	2,370	5,134	4,959	77.5	73.9	1,489	632	442	785
	4 mos.	1,831	23,602	1,255	27,047	27,620	4,152	4,274	392	4,349	3,927	1,026	853	9,601	20,458	19,914	75.6	72.1	6,589	2,692	1,927	3,502
Texas Mexican	April	161	282	....	301	335	57	55	6	29	31	10	12	84	203	179	67.3	53.4	99	38	24	55
	4 mos.	161	1,006	....	1,085	1,067	218	200	23	114	122	49	46	304	765	724	70.5	67.8	324	119	61	89
Toledo, Peoria & Western	April	239	602	....	611	677	60	100	6	50	52	12	54	175	370	493	69.5	59.5	147	107	67	87
	4 mos.	239	2,488	....	2,523	2,598	239	400	23	222	197	48	210	660	1,482	1,567	53.8	60.3	1,041	459	314	338
Union Pacific	April	9,786	36,184	1,878	40,852	39,993	6,840	6,237	561	8,297	7,568	1,735	1,315	13,789	32,322	30,730	79.1	76.8	8,538	4,724	2,210	3,093
	4 mos.	9,786	146,167	7,799	164,798	158,689	23,403	22,183	2,086	32,984	31,719	6,923	4,934	56,857	126,967	122,829	77.0	77.4	37,838	22,449	9,593	10,647
Virginian	April	611	5,461	....	5,722	4,478	565	436	65	667	678	224	56	1,061	2,454	2,127	42.9	47.5	3,267	1,684	1,754	1,274
	4 mos.	611	21,076	....	22,069	17,867	2,200	1,807	256	2,674	2,453	912	233	3,990	9,487	8,416	43.0	47.1	12,582	6,690	6,763	5,033
Wabash	April	2,392	9,031	407	10,249	9,633	1,174	1,135	134	1,518	1,293	403	368	4,455	7,968	7,349	77.7	76.3	2,231	765	756	853
	4 mos.	2,392	36,417	1,662	41,374	38,548	4,396	4,304	526	6,071	5,444	1,604	1,423	17,902	31,587	29,383	76.3	76.2	9,787	3,472	3,423	3,304
Ann Arbor	April	294	820	....	826	820	88	87	6	164	139	33	33	344	653	612	79.1	74.6	173	75	53	78
	4 mos.	294	3,180	....	3,204	3,130	317	302	25	637	562	134	127	1,423	2,594	2,463	81.0	78.7	610	299	176	224
Western Maryland	April	846	4,560	3	4,868	4,397	607	632	56	805	720	251	125	1,485	3,261	3,044	67.0	69.2	1,606	851	1,096	898
	4 mos.	846	18,081	14	19,313	17,469	2,449	2,425	208	3,204	3,101	1,000	488	5,853	13,129	12,528	68.0	71.7	6,184	3,152	4,204	3,281
Western Pacific	April	1,192	4,434	169	4,702	4,480	790	712	103	642	631	204	218	1,488	3,414	3,293	72.6	73.5	1,285	547	724	724
	4 mos.	1,192	16,383	648	17,394	16,884	2,741	2,959	373	2,520	2,500	808	889	5,863	13,135	13,185	75.5	78.1	4,259	1,870	2,225	2,234
Wisconsin Central	April	1,031	2,637	30	2,813	2,688	466	613	36	534	437	91	88	1,122	2,332	2,277	82.9	84.7	481	176	199	87
	4 mos.	1,031	10,362	115	11,034	10,479	1,548	1,573	155	1,870	1,689	317	358	4,623	8,917	8,308	80.8	79.3	2,117	689	662	763

TAMPS 3500 FEET IN 6 HOURS

with two GM Diesel-powered Tie Tampers

The C&O Railroad started using GM Detroit Diesel power in maintenance-of-way equipment in 1947. First engine was in a ditcher. Today the railroad has 28 of these fast-stepping 2-cycle Diesels powering a crane, ditchers, tampers, ballast distributors, dozers, carry-all scrapers and air compressors.

Shown here are two Matisa Tie Tampers, each propelled by a GM "4-71" Diesel which also drives equipment-mounted Ingersoll-Rand compressor to operate tampers. Following ballast distributors to compress ballast under ties for a solid road bed, these two units working together cover up to 3500 feet of road bed in six hours.

The versatile GM Series 71 Diesel offers the same unique features of standardization and parts interchangeability as the "567" locomotive engine. One cylinder assembly fits all units from 2 to 24 cylinders—a single inventory of basic parts protects all engines from 30 to 893 h.p. GM Diesel power is the choice of leading railroads in both on- and off-track equipment because *it does more work at less cost!* Get full details from your GM Detroit Diesel distributor, or write us.

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GM "4-71" Diesels provide power for propulsion and operation of Ingersoll-Rand compressors on Matisa Tie Tampers used by C&O Railroad.

Freight Operating Statistics of Large Railways—Selected Items

Region	Road	Year	Miles of road operated	Train-miles	Locomotive-Miles: Principal and helper	Locomotive-Miles: Light	Car-Miles: Loaded (thousands)	Car-Miles: Per cent loaded	Ton-miles (thousands): Gross excl. locos & tenders	Ton-miles (thousands): Net rev. and non-rev.	Road-locos. on lines: Serviceable: Unstored	Road-locos. on lines: Serviceable: Stored	Road-locos. on lines: B.O.	Road-locos. on lines: Per cent B.O.
New Eng. Region	Boston & Maine	1957	1,560	247,054	252,727	10,713	10,338	64.3	692,960	272,977	75	..	2	2.6
		1956	1,562	273,469	279,950	12,431	10,588	64.6	695,322	269,115	65	..	2	3.0
	N. Y., N. H. & Hfd	1957	1,739	266,678	266,678	16,137	12,179	66.6	773,843	307,910	83	..	15	15.3
		1956	1,746	277,035	277,267	18,646	12,312	68.4	753,371	301,358	83	..	15	15.3
Great Lakes Region	Delaware & Hudson	1957	771	183,457	189,209	7,171	9,614	68.0	684,371	363,492	40	..	2	4.8
		1956	792	192,354	198,419	7,996	10,200	68.4	724,228	380,042	38	..	3	7.3
	Del., Lack. & Western	1957	938	276,942	287,937	25,450	13,165	69.1	847,464	362,939	65	..	1	1.5
		1956	962	318,631	336,389	31,580	13,501	70.2	871,898	383,309	60	..	..	..
	Erie	1957	2,207	598,177	605,275	17,540	33,782	69.5	2,074,601	836,875	171	..	..	..
		1956	2,225	601,898	609,468	20,481	34,973	71.2	2,099,325	857,664	162	..	3	1.8
	Grand Trunk Western	1957	951	260,638	268,625	2,719	8,755	59.2	632,674	249,772	53	7	26	30.2
		1956	951	317,925	326,517	2,522	10,066	60.8	723,999	299,049	62	..	16	20.5
	Lehigh Valley	1957	1,134	225,425	228,701	6,849	10,259	63.5	703,906	310,009	33	..	1	2.9
		1956	1,137	241,036	244,982	10,770	11,143	67.7	756,550	354,407	33	..	2	5.7
	New York Central	1957	10,570	2,443,750	2,468,494	100,937	101,913	59.5	7,447,733	3,275,215	437	6	52	10.5
		1956	10,565	2,682,914	2,721,101	119,824	107,520	61.3	7,688,291	3,407,620	564	3	69	10.8
	New York, Chic. & St. L.	1957	2,155	773,116	791,421	9,570	33,167	63.5	2,393,019	1,059,770	182	..	16	8.1
		1956	2,154	802,328	827,427	9,436	34,268	66.1	2,391,934	1,074,135	179	1	22	10.9
	Pitts. & Lake Erie	1957	221	68,694	68,694	....	3,312	70.3	281,729	178,123	14	..	..	..
		1956	221	76,386	76,454	....	3,403	65.4	296,260	182,086	13	..	..	..
	Wabash	1957	2,379	555,449	555,793	6,421	24,441	65.2	1,622,810	641,730	112	..	1	.9
		1956	2,381	520,057	522,229	5,986	24,792	68.0	1,597,062	643,428	100	..	3	2.9
Central Eastern Region	Baltimore & Ohio	1957	5,897	1,639,893	1,824,826	162,440	69,225	61.8	5,353,249	2,603,573	472	5	83	14.8
		1956	5,910	1,740,465	1,948,411	178,745	66,585	59.9	5,513,859	2,652,728	455	2	76	14.3
	Bessemer & Lake Erie	1957	208	42,812	44,803	195	1,783	60.3	203,371	128,437	14	1	..	..
		1956	208	42,755	44,048	82	1,947	65.8	215,121	140,133	13	3	..	..
	Central RR Co. of New Jersey	1957	612	120,309	121,805	6,676	4,742	65.5	352,802	182,723	63	..	4	6.0
		1956	612	129,082	130,887	7,129	5,197	68.0	384,109	204,216	73	..	..	..
	Chicago & Eastern Ill.	1957	862	133,426	133,426	3,465	6,389	64.7	473,505	233,165	29	..	5	14.7
		1956	868	133,810	133,810	2,995	5,817	68.6	411,736	201,456	28	..	2	6.7
	Elgin, Joliet & Eastern	1957	236	97,212	98,161	....	2,912	60.0	245,644	130,608	39	..	4	9.3
		1956	236	101,746	102,824	....	3,243	62.4	266,608	144,229	37	..	3	7.5
	Pennsylvania System	1957	9,902	3,154,420	3,341,830	223,920	132,936	64.1	9,760,019	4,559,906	803	39	200	19.2
		1956	9,892	3,108,474	3,328,857	246,872	133,783	65.7	9,595,663	4,526,627	761	34	391	33.0
	Reading	1957	1,303	377,500	379,632	11,841	15,082	60.7	1,262,452	667,574	168	19	16	7.9
		1956	1,305	390,680	393,672	13,082	15,466	62.8	1,280,390	694,364	165	..	26	13.6
	Western Maryland	1957	846	183,493	192,736	13,145	7,838	61.6	677,762	382,427	48	..	..	..
		1956	846	188,344	197,662	13,039	7,914	62.1	679,231	385,386	36	..	..	..
Pocahontas Region	Chesapeake & Ohio	1957	5,067	1,627,188	1,632,946	30,979	73,324	55.3	6,634,230	3,705,816	573	8	75	11.4
		1956	5,067	1,657,336	1,685,013	51,336	67,508	56.8	5,900,488	3,254,214	488	11	114	18.6
	Norfolk & Western	1957	2,110	837,054	911,393	78,717	43,185	58.0	4,131,329	2,311,748	205	6	18	7.9
		1956	2,103	799,031	850,662	69,872	39,424	60.8	3,574,525	1,988,650	226	6	20	7.9
Southern Region	Atlantic Coast Line	1957	5,283	810,605	810,605	10,048	27,786	58.7	2,091,582	924,923	126	..	4	3.1
		1956	5,278	929,049	929,065	10,345	29,937	58.8	2,230,056	992,346	222	..	5	2.2
	Central of Georgia	1957	1,731	187,333	187,333	1,791	7,975	68.6	559,339	275,089	32	..	3	8.6
		1956	1,731	210,026	210,053	1,746	8,613	68.3	606,397	296,173	33	..	1	2.9
	Gulf, Mobile & Ohio	1957	2,717	283,980	283,980	136	17,093	68.7	1,177,879	566,191	85	..	6	6.6
		1956	2,717	280,112	280,112	89	16,259	70.4	1,089,882	527,742	86	..	5	5.5
	Illinois Central	1957	6,503	1,168,106	1,168,106	32,121	50,212	60.0	3,758,550	1,713,861	252	76	59	15.2
		1956	6,531	1,233,693	1,237,535	36,614	52,996	63.6	3,842,091	1,803,172	330	9	107	24.0
	Louisville & Nashville	1957	4,713	894,569	896,532	14,988	34,525	61.9	2,639,550	1,347,785	142	..	2	1.4
		1956	4,714	892,989	898,906	18,287	33,861	64.1	2,520,253	1,287,039	191	13	22	9.7
	Nash., Chatt. & St. Louis	1957	1,043	168,003	171,862	3,842	5,614	68.2	380,336	178,907	41	..	2	4.7
		1956	1,043	192,678	197,525	4,940	6,460	69.5	438,234	211,246	51	..	2	3.8
	Seaboard Air Line	1957	4,051	711,075	711,075	2,337	28,046	61.5	2,086,214	943,545	149	..	7	4.5
		1956	4,051	716,915	716,915	3,097	28,532	63.7	2,071,776	949,128	151	..	3	1.9
	Southern	1957	6,251	878,061	878,131	10,064	43,082	66.3	2,889,932	1,341,317	166	12	10	5.3
		1956	6,259	947,212	947,282	12,501	46,199	67.6	3,037,461	1,408,716	283	..	1	.4
Northwestern Region	Chicago & North Western (a)	1957	9,280	883,382	883,405	10,800	33,723	62.3	2,467,633	1,011,690	182	..	13	6.7
		1956	9,344	908,532	912,263	13,728	37,351	65.6	2,557,207	1,129,877	198	11	45	17.7
	Chicago Great Western	1957	1,437	140,440	140,440	270	8,711	70.2	604,929	296,104	31	..	1	3.1
		1956	1,437	139,633	139,633	193	8,242	71.2	540,901	251,695	31	..	2	6.1
	Chic., Milw., St. P. & Pac.	1957	10,621	941,083	956,405	17,916	43,368	65.9	2,982,738	1,362,745	277	1	18	6.1
		1956	10,633	990,417	1,005,575	21,001	43,640	65.9	2,957,119	1,326,267	278	7	16	5.3
	Duluth, Missabe & Iron Range	1957	565	31,274	31,274	438	517	51.7	42,066	19,139	28	36	16	20.0
		1956	569	33,602	34,047	950	655	54.1	52,658	25,013	38	24	5	7.5
	Great Northern	1957	8,272	1,072,494	1,076,980	32,756	40,965	69.9	2,820,513	1,319,540	230	78	4	1.3
		1956	8,272	1,154,008	1,162,368	43,758	42,684	69.6	2,936,214	1,367,689	262	67	37	10.1
	Minneap., St. P. & S. Ste. M.	1957	4,169	413,870	416,367	2,529	14,626	62.8	1,029,906	455,810	87	5	1	1.1
		1956	4,171	419,993	422,896	2,903	14,855	68.0	982,297	448,815	82	10	6	6.1
	Northern Pacific	1957	6,536	778,702	791,202	20,250	34,341	70.8	2,259,619	1,044,061	236	60	31	9.5
		1956	6,569	876,541	894,711	25,627	37,400	66.7	2,528,505	1,126,576	256	60	44	12.2
	Spokane, Portland & Seattle	1957	944	144,585	144,585	1,319	6,369	74.0	427,799	210,180	48	..	2	4.0
		1956	946	153,100	153,100	1,400	6,453	73.4	430,914	206,850	54	..	10	15.6
Central Western Region	Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.)	1957	13,172	2,504,741	2,628,234	53,458	122,025	64.8	8,339,743	3,251,423	568	44	63	9.3
		1956	13,124	2,507,097	2,637,448	74,216	118,246	65.7	7,835,488	3,002,601	527	58	60	9.3
	Chic., Burl. & Quincy	1957	8,765	1,023,072	1,017,954	22,283	47,661	68.2	3,122,662	1,370,501	141	44	38	17.0
		1956	8,771	1,089,130	1,084,945	26,379	50,201	69.8	3,267,249	1,459,943	207	37	47	16.2
	Chic., Rock I. & Pac.	1957	7,581	984,687	987,358	3,180	41,910	62.9	3,020,422	1,293,911	171	..	4	2.3
		1956	7,580	946,162	941,729	1,306	38,174	62.8	2,717,593	1,126,941	170	..	5	2.9
	Denver & R. G. Wn.	1957	2,155	304,824	328,058	39,025	15,742	72.4	1,081,110	537,597	74	6	4	4.8
		1956	2,155	293,046	313,327	36,330	14,892	70.8	1,008,708	485,385	68	11	22	21.8
	Southern Pacific	1957	8,036	2,031,856	2,109,908	99,235	99,046	65.7	6,703,004	2,832,980	619	125	29	3.8
		1956	8,055	2,175,898	2,273,838	156,596	102,567	66.4	6,873,143	2,914,488	634	102	66	8.2
	Union Pacific	1957	9,786	2,220,389	2,275,905	90,587	105,891	66.0	7,210,607	3,113,478	403	58	90	16.3
		1956	9,805	2,264,983	2,316,100	93,075	109,001	68.3	7,162,718	3,105,625	400	110	125	19.7
	Western Pacific	1957	1,190	237,256	254,434	14,402	10,926	70.9	708,780	317,849	46	..	1	2.1
		1956	1,190	243,649	259,881	14,361	10,716	67.4	718,084	316,082	46	..	..	..
Southwestern Region	Kansas City Southern	1957	886	146,107	146,118	305	8,755	66.3	638,721	291,303	26	..	..	..
		1956	886	166,299	166,307	409	9,721	68.3	694,898	320,492	24	..	2	7.7
	Louisiana & Arkansas	1957	746	80,899	80,899	32	4,061	62.9	319,175	149,003	20	..	..	..
		1956	753	99,938	99,938	234	4,550	65.4	346,523	162,568	17	..	..	..
	Mo.-Kans.-Texas Lines	1957	3,172	298,415	298,415	3,223	14,456	63.4	974,123	344,864	71	..	5	6.6
		1956	3,230	353,151	353,151	3,654	15,598	65.6	1,020,391	444,038	86	..	2	2.3
	Missouri Pacific	1957	9,662	1,214,686	1,214,686	9,931	56,497	63.8	4,023,839	1,799,160	330	..	32	8.8
		1956	9,709	1,352,216	1,352,216	11,465	59,668	63.6	4,212,224	1,852,382	352	5	26	6.8
	Texas & Pacific	1957	1,822	303,884	303,884	4,426	15,163	62.1	1,118,789	437,157	45	..	..	..
		1956	1,822	328,847	328,847	5,189	16,074	62.6	1,175,237	459,512	62	..	..	..
	St. Louis-San Francisco	1957	4,573	617,950	617,950	5,850	25,316	68.1	1,700,814	789,037	85	..	16	15.8
		1956	4,573	628,825	628,825	5,989	25,824	68.1	1,714,402	785,963	98	..	6	5.8
	St. Louis Southw. Lines	1957	1,554	351,351	351,379	1,619	16,741	67.8	1,075,055	480,565	51	..	..	..
		1956	1,554	358,209	358,211	1,713	18,029	70.8	1,144,522	511,617	55	..	3	5.2
	Texas & New Orleans	1957	4,285	690,145	690,145	854	29,649	62.3	2,115,023	906,472	139	..	2	1.4
		1956	4,302	737,080	737,080	3,009	30,816	63.5	2,166,226	931,055	128	..	3	2.3

For the Month of March 1957 Compared with March 1956

Region	Region, Road and Year	Freight cars on line: Home	Foreign	Total	Per Cent B.O.	G.t.m.per train-hr. excl.locos and tenders	G.t.m.per train-mi. excl.locos. and tenders	Net ton-mi. per train-mile	Net ton-mi. per l'd car-mile	Net ton-mi. per car-day	Car-miles per car-day	Net daily ton-mi. per road-mi.	Train-miles per train-hour	Miles per loco. per day
New Eng. Region	Boston & Maine 1957	1,439	9,036	10,475	1.6	44,318	2,812	1,108	26.4	837	49.3	5,645	15.8	125.6
	1956	1,597	10,430	12,027	3.7	39,083	2,550	987	25.4	754	45.9	5,558	15.4	156.5
	N. Y., N. H. & Htfd 1957	2,310	14,129	16,439	2.3	47,487	2,902	1,155	25.3	611	36.3	5,712	16.4	116.6
	1956	1,793	20,530	22,323	1.9	42,986	2,719	1,089	24.5	461	27.5	5,571	15.8	118.7
Great Lakes Region	Delaware & Hudson 1957	2,024	5,787	7,811	4.6	64,643	3,746	1,990	37.8	1,437	55.9	15,208	17.3	168.6
	1956	1,623	6,495	8,118	4.0	66,261	3,781	1,984	37.3	1,466	57.5	15,479	17.6	172.6
	Del., Lack. & Western 1957	4,415	12,367	16,782	2.7	56,310	3,109	1,331	27.6	730	38.3	12,482	18.4	168.9
	1956	3,460	13,049	16,509	2.3	49,063	2,777	1,221	28.4	774	38.9	12,853	17.9	214.4
	Erie 1957	6,290	19,936	26,226	2.5	72,437	3,494	1,409	24.8	1,023	59.4	12,232	20.9	130.8
	1956	6,703	20,964	27,667	2.8	66,915	3,516	1,436	24.5	1,005	57.6	12,434	19.2	137.5
	Grand Trunk Western 1957	4,191	8,803	12,994	5.6	51,995	2,444	965	28.5	633	37.5	8,472	21.4	114.5
	1956	3,628	9,860	13,488	6.7	47,197	2,306	952	29.7	694	38.4	10,144	20.7	148.1
	Lehigh Valley 1957	4,272	10,118	14,390	2.7	72,929	3,139	1,382	30.2	701	36.5	8,819	23.4	241.2
	1956	7,705	8,312	16,017	4.1	66,382	3,196	1,497	31.8	712	33.1	10,055	21.1	253.9
	New York Central 1957	50,925	90,094	141,019	2.8	53,148	3,091	1,359	32.1	731	38.2	9,995	17.4	170.3
	1956	48,119	94,849	142,968	3.3	50,118	2,920	1,294	31.7	750	38.6	10,404	17.5	151.4
	New York, Chic. & St. L. 1957	6,820	18,949	25,769	7.2	55,102	3,155	1,397	32.0	1,330	65.6	15,864	17.8	143.9
	1956	6,727	19,051	25,778	5.7	52,646	3,044	1,367	31.3	1,333	64.3	16,086	17.7	149.1
	Pitts. & Lake Erie 1957	3,668	10,401	14,069	6.1	57,993	4,118	2,603	53.8	434	11.5	26,000	14.1	174.3
	1956	2,947	8,919	11,866	5.4	59,240	3,893	2,393	53.5	478	13.7	26,578	15.3	191.5
	Wabash 1957	9,425	10,604	20,029	3.3	63,898	2,933	1,160	26.3	1,029	60.1	8,702	21.9	169.5
	1956	8,691	10,436	19,127	4.4	67,406	3,084	1,242	26.0	1,082	61.3	8,717	21.9	175.2
Central Eastern Region	Baltimore & Ohio 1957	44,133	54,706	98,839	3.8	51,712	3,323	1,616	37.6	845	36.3	14,242	15.8	119.1
	1956	44,569	52,631	97,200	4.4	48,848	3,224	1,551	39.8	896	37.5	14,479	15.4	136.3
	Bessemer & Lake Erie 1957	5,536	809	6,345	6.8	81,511	4,999	3,157	72.0	672	15.5	19,919	17.2	111.1
	Central RR Co. of New Jersey 1957	2,077	10,057	12,134	6.3	42,873	3,032	1,570	38.5	466	18.4	9,631	14.6	85.2
	1956	2,213	11,310	13,523	6.3	42,855	3,112	1,654	39.3	489	18.3	10,764	14.4	90.6
	Chicago & Eastern Ill. 1957	2,487	4,103	6,590	9.5	65,257	3,586	1,766	36.5	1,105	46.8	8,726	18.4	139.5
	1956	2,430	3,484	5,914	6.8	55,730	3,086	1,510	34.6	1,104	46.5	7,487	18.1	155.2
	Elgin, Joliet & Eastern 1957	7,280	11,543	18,823	5.0	20,615	2,657	1,413	44.9	182	6.8	17,852	8.2	97.8
	1956	6,750	11,445	18,195	4.8	21,300	2,756	1,491	44.5	251	9.0	19,714	8.1	108.1
	Pennsylvania System 1957	95,936	96,442	192,378	7.2	55,014	3,175	1,483	34.3	757	34.4	14,855	17.8	118.4
	1956	98,197	94,119	192,316	6.9	53,806	3,167	1,494	33.8	760	34.2	14,761	17.4	105.2
	Reading 1957	12,173	20,963	33,136	2.7	53,042	3,344	1,768	44.3	624	23.2	16,527	15.9	74.2
	1956	10,455	21,650	32,105	3.7	49,398	3,277	1,777	44.9	683	24.2	17,164	15.1	80.8
	Western Maryland 1957	4,938	5,205	10,143	1.9	51,029	3,788	2,137	48.8	1,238	41.2	14,582	13.8	154.6
	1956	4,332	5,170	9,502	2.4	48,746	3,664	2,079	48.7	1,202	39.8	14,695	13.5	206.6
Pocahontas Region	Chesapeake & Ohio 1957	52,755	34,911	87,666	.7	78,252	4,104	2,293	50.5	1,415	50.7	23,592	19.2	86.4
	1956	48,684	33,781	82,465	1.3	67,467	3,589	1,979	48.2	1,294	47.3	20,717	19.0	101.5
	Norfolk & Western 1957	36,639	11,366	48,005	1.2	87,236	5,051	2,827	53.5	1,530	49.3	35,342	17.7	148.5
	1956	32,996	11,280	44,276	1.2	76,166	4,597	2,558	50.4	1,463	47.7	30,504	17.0	127.3
Southern Region	Atlantic Coast Line 1957	18,831	18,893	37,724	4.2	48,364	2,597	1,148	33.4	791	40.4	5,648	18.7	221.6
	1956	18,093	18,947	37,040	4.1	45,104	2,411	1,073	33.1	857	44.0	6,065	18.8	144.7
	Central of Georgia 1957	2,153	6,285	8,438	3.1	53,403	2,991	1,471	34.5	1,019	43.1	5,126	17.9	191.4
	1956	2,362	7,035	9,397	4.0	49,987	2,893	1,413	34.4	1,002	42.7	5,519	17.3	221.6
	Gulf, Mobile & Ohio 1957	5,390	10,026	15,416	7.1	81,616	4,153	1,996	33.1	1,159	50.9	6,722	19.7	108.7
	1956	4,752	11,099	15,851	4.6	75,201	3,894	1,886	32.5	1,133	49.6	6,266	19.3	107.7
	Illinois Central 1957	26,370	25,245	51,615	2.5	56,715	3,254	1,484	34.1	1,055	51.6	8,502	17.6	108.9
	1956	24,699	28,438	53,137	2.3	52,498	3,156	1,481	34.0	1,099	50.8	8,906	16.9	97.7
	Louisville & Nashville 1957	25,196	15,247	40,443	4.2	53,539	2,958	1,510	39.0	1,054	43.6	9,225	18.1	221.9
	1956	28,572	15,626	44,198	3.2	48,639	2,829	1,445	38.0	939	38.5	8,807	17.2	145.3
	Nash., Chatt. & St. Louis 1957	2,732	5,016	7,748	6.3	47,007	2,266	1,066	31.9	752	34.6	5,533	20.8	143.9
	1956	3,504	3,695	7,199	3.8	44,686	2,276	1,097	32.7	963	42.4	6,533	19.6	135.4
	Seaboard Air Line 1957	11,883	17,715	29,599	2.1	56,615	2,987	1,351	33.6	990	47.9	7,513	19.3	172.2
	1956	11,508	16,926	28,434	2.7	53,755	2,956	1,354	33.3	1,025	48.4	7,558	18.6	177.9
	Southern 1957	17,123	25,780	42,903	4.4	55,334	3,300	1,532	31.1	1,004	48.7	6,922	16.8	167.8
	1956	14,798	26,607	41,405	2.5	54,590	3,219	1,493	30.5	1,096	53.2	7,260	17.0	122.0
Northwestern Region	Chicago & North Western (a) 1957	19,679	30,774	50,453	5.3	49,171	2,831	1,161	30.0	612	32.7	3,517	17.6	166.3
	1956	17,268	36,196	53,464	4.2	49,108	2,859	1,263	30.3	668	33.6	3,901	17.4	127.6
	Chicago Great Western 1957	1,703	4,601	6,304	3.0	80,733	4,312	2,111	34.0	1,550	64.9	6,647	18.7	148.3
	1956	1,182	4,008	5,190	2.8	75,073	3,880	1,806	30.5	1,603	73.7	5,650	19.4	142.6
	Chic., Milw., St. P. & Pac. 1957	28,297	31,133	59,430	6.7	62,213	3,180	1,453	31.4	741	35.8	4,139	19.6	112.2
	1956	28,364	32,087	60,451	6.3	57,734	2,994	1,343	30.4	700	34.9	4,024	19.3	118.0
	Duluth, Missabe & Iron Range. 1957	13,564	634	14,198	1.7	22,640	1,470	669	37.0	44	2.3	1,093	16.8	16.1
	1956	13,728	703	14,431	2.2	22,455	1,680	798	38.2	55	2.7	1,418	14.3	20.6
	Great Northern 1957	21,333	21,529	42,862	3.6	55,401	2,651	1,240	32.2	989	43.9	5,146	21.1	122.5
	1956	21,772	21,610	43,382	2.7	51,028	2,571	1,197	32.0	1,022	45.8	5,334	20.1	108.9
	Minneap., St. P. & S. Ste. M. 1957	5,646	9,316	14,962	5.6	53,115	2,502	1,108	31.2	971	49.6	3,527	21.3	161.1
	1956	5,825	9,296	15,121	5.3	48,100	2,352	1,075	30.2	959	46.7	3,471	20.6	157.1
	Northern Pacific 1957	18,117	14,510	32,627	3.5	59,643	2,914	1,346	30.4	986	45.8	5,153	20.6	85.7
	1956	18,250	19,446	37,696	6.0	57,018	2,896	1,290	30.1	942	46.9	5,532	19.8	88.9
	Spokane, Portland & Seattle 1957	1,410	4,302	5,712	1.4	42,340	2,972	1,460	33.0	1,094	44.8	7,182	14.3	101.3
	1956	1,224	4,191	5,415	2.3	42,417	2,841	1,364	32.1	1,253	53.3	7,053	15.1	88.6
Central Western Region	Atch., Top. & S. Fe (incl. 1957	55,907	36,603	92,510	4.8	79,198	3,334	1,300	26.6	1,130	65.4	7,963	23.8	136.9
	G. C. & S. F. and P. & S. F.) 1956	47,698	35,608	83,306	3.1	73,970	3,132	1,200	25.4	1,165	69.8	7,380	23.7	143.6
	Chic., Burl. & Quincy 1957	21,433	23,283	44,716	2.6	67,086	3,057	1,342	28.8	1,000	51.0	5,044	22.0	159.9
	1956	16,566	23,824	40,390	3.9	64,577	3,003	1,342	29.1	1,186	58.4	5,369	21.5	131.4
	Chic., Rock I. & Pac. 1957	12,294	24,381	36,675	5.8	62,649	3,078	1,318	30.9	1,178	60.7	5,506	20.4	191.1
	1956	11,476	20,227	31,703	4.5	58,996	2,881	1,195	29.5	1,147	61.9	4,796	20.5	181.7
	Denver & R. G. Wn. 1957	6,679	6,256	12,935	3.1	67,892	3,561	1,771	34.2	1,336	54.1	8,047	19.1	149.5
	1956	7,341	6,142	13,483	3.0	67,762	3,450	1,660	32.6	1,145	49.6	7,266	19.7	113.8
	Southern Pacific 1957	29,430	39,525	68,955	1.7	67,888	3,345	1,414	28.6	1,344	71.5	11,372	20.6	100.0
	1956	30,017	45,228	75,245	1.8	62,729	3,194	1,355	28.4	1,293	68.6	11,672	19.9	108.2
	Union Pacific 1957	30,876	35,451	66,327	1.8	84,210	3,275	1,414	29.4	1,561	80.5	10,263	25.9	140.5
	1956	28,069	32,469	60,538	1.7	79,879	3,181	1,379	28.5	1,638	84.2	10,217	25.3	128.6
	Western Pacific 1957	2,209	3,228	5,437	2.0	73,161	3,011	1,350	29.1	1,842	89.3	8,616	24.5	194.5
	1956	2,254	4,581	6,835	1.3	75,405	2,969	1,307	29.5	1,552	78.0	8,568	25.6	199.3
Southwestern Region	Kansas City Southern 1957	1,913	5,460	7,373	3.0	90,895	4,384	1,999	33.3	1,279	58.0	10,606	20.8	209.5
	1956	1,302	6,323	7,625	1.8	88,692	4,220	1,946	33.0	1,375	61.1	11,669	21.2	223.9
	Louisiana & Arkansas 1957	1,865	3,521	5,386	5.8	75,904	3,954	1,846	36.7	909	39.4	6,443	19.2	167.7
	1956	1,443	4,031	5,474	3.7	67,919	3,471	1,628	35.7	963	41.2	6,964	19.6	219.8
	Mo.-Kans.-Texas Lines 1957	4,550	6,566	11,116	7.0	63,140	3,276	1,160	23.9	979	64.7	3,507	19.3	136.8
	1956	3,812	7,437	11,249	6.2	61,685	2,895	1,260	28.5	1,237	66.3	4,435	21.3	138.4
	Missouri Pacific 1957	20,296	26,310	46,606	3.8	70,887	3,323	1,486	31.8	1,278	62.9	6,007	21.4	114.0
	1956	20,435	30,830	51,265	4.8	67,433	3,142	1,382	31.0	1,171	59.3	6,155	21.6	123.8
	Texas & Pacific 1957	3,085	6,491	9,576	2.7	81,107	3,693	1,443	28.8	1,423	79.5	7,740	22.0	238.4
	1956	2,437	7,373	9,810	2.3	77,959	3,589	1,403	28.6	1,541	86.2	8,136	21.8	185.1
	St. Louis-San Francisco 1957	12,124	11,880	24,004	2.1	58,576	2,765	1,283	31.2	1,064	50.1	5,566	21.3	206.4
	1956	11,336	11,665	23,001	3.2	56,105	2,735	1,254	30.4	1,057	51.0	5,544	20.6	212.5
	St. Louis Southw. Lines 1957	1,961	4,639	6,600	.8	69,664	3,060	1,368	28.7	2,306	118.5	9,976	22.8	232.2
	1956	1,826	5,396	7,222	1.7	67,037	3,206	1,433	28.4	2,332	116.0	10,620	21.0	214.1
	Texas & New Orleans 1957	5,367	15,983	21,350	1.2	66,726	3,083	1,321	30.6	1,357	71.2	6,824	21.8	170.0
	1956	5,332	17,124	22,456	1.4	61,108	2,958	1,271	30.2	1,353	70.5	6,981	20.8	192.6

a Includes operations of Chicago, St. Paul, Minneapolis and Omaha Railway Co. under lease effective January 1,1957.

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a RAILWAY AGE Workbook Page

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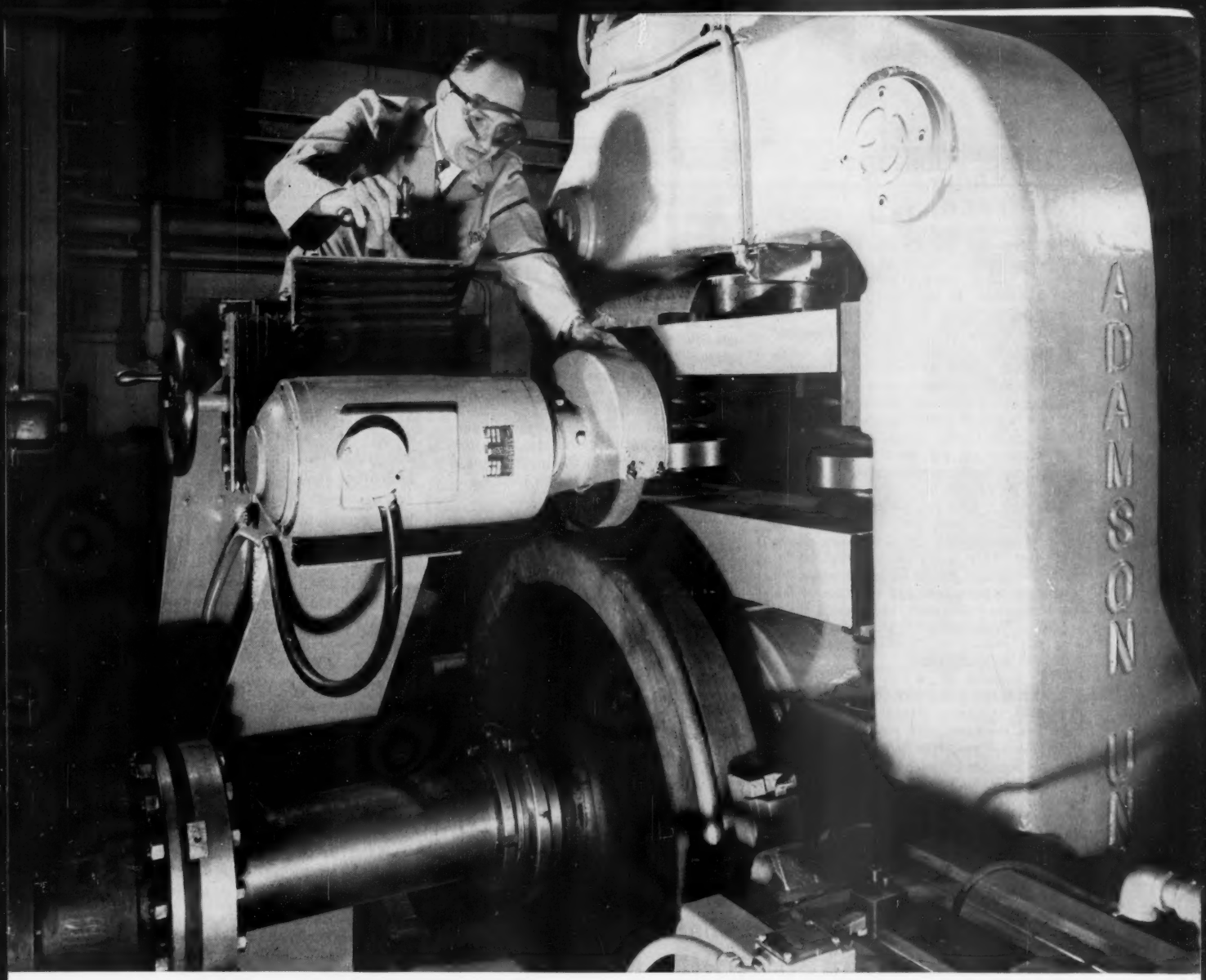

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USS WROUGHT STEEL WHEELS

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Current Publications

BOOKS

BULLETIN NO. 95. 100 pages, illustrations, drawings. Railway & Locomotive Historical Society, Baker Library, Harvard Business School, Boston. $2 to members; $3 to nonmembers.

Lead article in this issue is a comprehensive history of the Kansas City, Mexico & Orient by J. Wallace Higgins, III. Walter F. Becker writes of the early rolling stock that was delivered by river to the railroads of Minnesota; F. Stewart Graham describes some odd-appearing 10-wheelers on the Elmira, Cortland & Northern; and another of the CB&Q papers from the late A. W. Newton is presented. This one covers the several "Q" terminals used in Chicago, and, with the exception of some short sketches, is the last of the many papers prepared by Mr. Newton. Charles Ringel recounts the history, development and function of the locomotive brick arch, and finally, there is M. B. Wakefield's article on the disaster at the Bussey or "tin" bridge on the Boston & Providence.

●

WILD TRAIN; THE STORY OF THE ANDREWS RAIDERS, by Charles O'Neill. 482 pages, illustrations, end-paper maps. Random House, Inc., 457 Madison ave., New York 22. $6.

In April 1862 occurred one of the most dramatic events of the Civil War—the unexpected capture of the locomotive "General" deep in the Confederacy by 22 disguised Union raiders, and the ensuing 86-mile chase led by a handful of determined and resouceful southern railroadmen. This book reveals the backgrounds of the young Ohio soldiers who followed the man known as J. J. Andrews, how they came to be together on the train that made a breakfast stop that morning at Big Shanty, Ga., and what actually happened to them then and afterwards. Since the story is told almost entirely in the words of participants on both sides, it is as accurate and complete an account of the raid and chase as can be found in one place. It continues with an account of the fateful trials that followed and some of the most astonishing prison breaks and escape journeys of the war.

PAMPHLETS

OPPORTUNITY. 37 pages. Railway Progress Institute, 38 South Dearborn st., Chicago 3. Free.

A description of what the Railway Progress Institute is and does.

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REPEAL OF EXCISE TAXES ON TRANSPORTATION. 22 pages. Association of American Railroads, Transportation, Bldg., Washington 6, D.C. Free.

The AAR has reproduced in this booklet editorials and resolutions urging repeal of the excise taxes on transportation.

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New Issue June 18, 1957

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New Role for Accountants

(Continued from page 27)

do the earnings warrant the expense?

"To what extent can we afford to improve the handling of various types of traffic and to speed up its movement?

"What combination of or expansion of present or new services would it pay us to provide?

"What are our costs, separated as to their major elements and between direct and overhead expenses, for operating given yards, freight stations and other facilities, and how do they compare with what reasonably should be expected, using such yardsticks as volumes of traffic handled, bills prepared and cars moved?

"What are the costs of delays and loss of traffic from holding trains for tonnage, as compared to the potentials of moving shorter trains and providing speedier service?"

Mr. Russell also urged development of young men in the accounting departments. He would stimulate their thinking "beyond the routines of their immediate jobs" and encourage "transfer and rotation of accounting officers to and through other departments."

"One of our principal problems," he declared, "is to find people willing and capable to assume added responsibilities."

Mr. Murphy contended that "science fiction" vision of the future railroad is not too far-fetched.

"In many cases," he said, "the seeds have already been sown and some of the steps actually taken. Others are merely logical extensions of present procedures and must develop in a relatively short time."

Mr. Murphy also said that each railroad, no matter how efficient it is itself, must bear a portion of the costs of the whole industry because of the natural interdependence of railroads on each other. "Consequently, every possible element of cost saving must be looked at not only from the standpoint of each individual road but from its effect on the total railroad economy."

Commissioner Hutchinson said that the future importance of the railroad accounting officer lies in developing greater refinements in fiscal procedures and accounting, particularly cost accounting—and in devising new techniques in developing costs quickly and accurately.

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Wine Railway Appliance Company .. Inside Back Cover

Today's Hottest Operating Problem

During the AAR Mechanical Division's annual meeting in Chicago this week, no more important subject will come up for discussion than that dealing with the lubrication of cars. This will be embraced in a report scheduled for presentation on June 27.

Situation Getting Worse

The hot box problem becomes constantly more acute. The reason is that higher freight train and switching speeds expose the conventional designs of boxes and bearings to increasingly severe operating conditions. It used to be that there was plenty of time for inspection of journal boxes at division-point terminals. But train handling at intermediate points has been accelerated—so that, now, the servicing and inspection of cars is frequently the most time consuming operation at division terminals. Faster schedules, and dieselization's elimination of intermediate locomotive changes or servicing, have put car department forces under increasing pressure to reduce inspection time.

Railroads are shrinking their multiple-track territories, and it is important that trains be able to move rapidly and reliably. Increasing lengths of freight trains —and the fact that some of the recently introduced lubricating devices do not produce the conventional symptoms when overheated—have made it more and more difficult to detect bearing troubles in time to prevent failures.

The problem is far from new, but the hot box today probably presents the greatest single deterrent to orderly and dependable freight train operation. The hot box—always a nuisance, but one possible to live with under steam operation—has become a major impediment to acceptable performance.

Down through the years there have been waste-retaining ribs cast in journal boxes, and various types of packing retainers which can be installed in the boxes to prevent "waste grabs." For the entire period when the conventional bearing has been cited as the big troublemaker, roller bearings have been available. Currently, new types of cartridge bearings are under test. Railroads have experimented with various oil specifications, and have adopted controlled bearing clearances. Reports have indicated improved performance with some recently introduced journal lubricating arrangements, and with those which prevent movement of the axle during switching and impacts from train-slack.

While the conventional bearing has been in use on the railroads for a long time, it is only within the past ten or fifteen years that efforts have been concentrated on finding a way to eliminate its frequent overheating. Attempts at solutions have led to increasing expenditures and work by the railroads, by their suppliers, and by the AAR Mechanical Division. Within the practical limits of research budgets and the institution of maintenance practices, widespread effort has been going on to find some of the answers.

Inability of the conventional journal bearing and box to keep its loose packing where it belongs led the AAR Mechanical Division to prescribe elimination of the use of loose packing after August 1 of this year. There have been some dissenting voices (e.g., letters from W. R. Compton Jr., page 86 in our last week's issue and from C. House page 45, June 18, 1956, issue). The fact still stands that new cars built after August 1 of this year and all freight cars after August 1, 1960 are scheduled to be lubricated in some way other than that most common at present.

The introduction of new methods for delivering oil to the journal surface has reportedly given greatly improved performance. Meantime, however, journal performance has not been improving during the past four years. The winter months produce results many times better than the summer months and July seems to give the poorest results year after year.

Somewhere in the neighborhood of 35,000 freight cars in this country are equipped with roller bearings, and these cars are the testimony to the belief of some that roller bearings will provide the ultimate solution to the hot-box problem.

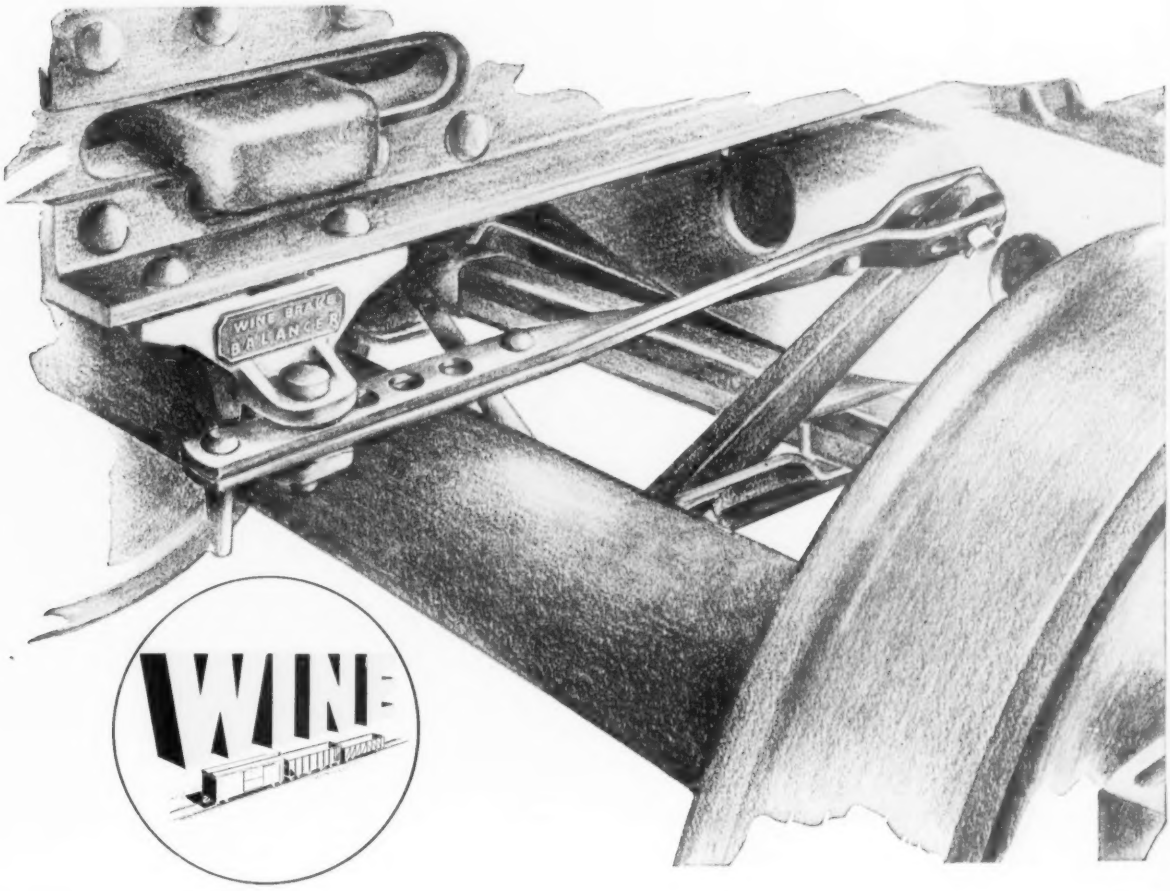
On the other side of the picture there are many and varied interests, both in the bearing and lubricator device fields, which have based their claims upon the economics of lower initial cost. Out of the research and development work in this field have come about twenty approved journal lubricating devices. The railroads have worked with the oil companies to develop suitable lubricants. Other companies have worked to develop improved dust guards and journal stops.

Earnings Are a Factor

The hot-box performance records of the railroads not only fluctuate up and down with the seasons, but, as is too well known, fluctuate also with the degree of prosperity of the railroads. Any piece of mechanical equipment requires attention, and the railroads that put on adequate car-department forces in an effort to improve their hot-box situation find themselves right back where they started when economic conditions require a reduction in forces.

The AAR Mechanical Division has done an outstanding job in bringing together all of the factors in this case. Its efforts toward a solution deserve the industry's appreciative and continuing support.

EQUALIZE BRAKE FORCES..



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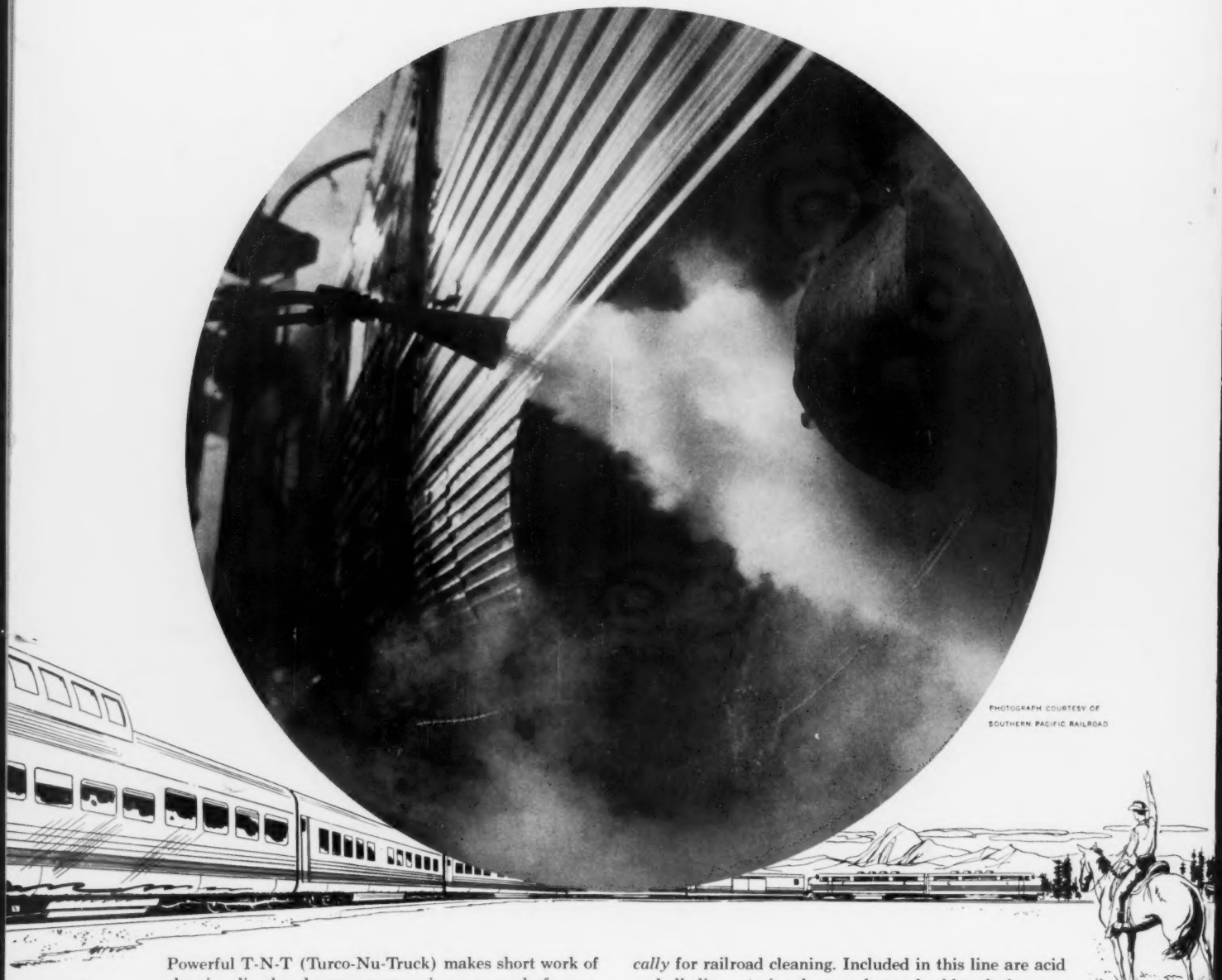

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Powerful T-N-T (Turco-Nu-Truck) makes short work of cleaning diesel and passenger running gear, underframes, wheels and fuel tanks. Grease, crater compound, oil and dirt fall easy prey to its potent attack. Even that tenacious, hard-to-remove brown scum (oxide film) is quickly and thoroughly removed. What's more, this material does its job in *one easy operation*... with no need for other processing... and, with no objectionable burning fumes.

Turco-Nu-Truck is but one of many materials comprising the *complete* line of Turco compounds engineered *specifically* for railroad cleaning. Included in this line are acid and alkaline exterior cleaners, hot and cold tank cleaners, emulsion cleaners, electrical equipment cleaners, steam cleaners, rust removers and preventives, paint strippers, phosphate pre-paint treatments, dye penetrant flaw location materials, a full line of cleaning equipment, and many, many specialty products. This complete line, plus on-the-spot nationwide Turco technical service, stands as the main reason why, when it comes to *cleaning*, America's leading railroads turn to Turco... *first!*

TURCO

TURCO PRODUCTS, INC. *Railroad Division*

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